REFERENCE
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SCIENCE AND INDUSTRY
JULY, 1943

1943
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fueloil & oil heat

"Still There"

Strategy ON THE HOME FRONT

Like a winning army which must consolidate its gains, you dealers who have kept the country's heating equipment functioning efficiently still have a tough job to do.

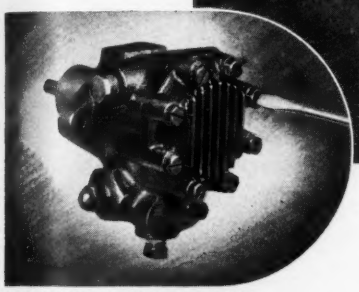
As things stand now, you'll be asked to help effect still greater economies in fuel consumption. This will mean front-line duty for you all summer long. It will mean making certain that *all* your customers go into the next winter in the best possible shape.

It used to be simply good business to get the help of the Perfex Twins in bringing heating systems to top efficiency. Now it's good strategy in the all-important fight against fuel waste to install controls by Perfex. Both replacement and permissible new installations can get the benefit of the proved reliability and stamina of Perfex-built controls. Order them from the manufacturer of the heating equipment you sell.

PERFEX CORPORATION

500 West Oklahoma Avenue, Milwaukee 7, Wisconsin

Sundstrand SERVICE SUGGESTIONS



1. REMOVE COVER SCREWS

3. REPLACE ANTI-HUM ASSEMBLY (ON CURRENT MODELS–SEE TEXT)

SUMMARY OF "SUGGESTIONS"

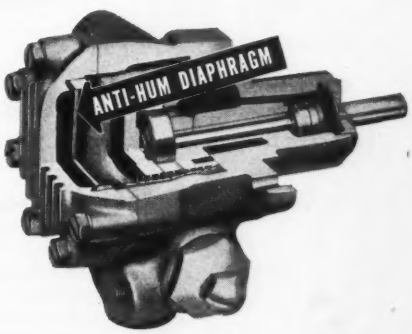
1. Clean the Strainer.
2. Check The Valve.
3. Correct Poor Cut-off.
4. Eliminate Noise.
5. If Oil Flow Fails...
6. Eliminate "Tank Hum".

*6. Eliminate "Tank Hum"

Sundstrand pumps are quiet. But if, in single-pipe installations, the characteristic high-pitched whine known as "tank hum" should develop, it is possibly caused by failure of, or damage to, the anti-hum diaphragm in the cover of the fuel unit. On earlier models of the S-1 Fuel Unit, it is advisable to replace the entire cover with its built-in diaphragm. On current models, a removeable anti-hum assembly is provided, which can be easily pried out and replaced. Keep your Sundstrand pumps operating at top efficiency!

CROSS-SECTION OF S-1 FUEL UNIT

The anti-hum diaphragm is located in the cover of the Sundstrand S-1 Fuel Unit as shown here. Another cause of tank hum, in a two-pipe system, may be traceable to the return line and will require installation of a hum eliminator available from Sundstrand Field Service Stations or the factory. Write for Service Bulletin 102 and for Bulletins 106 and 107 showing mounting adaptors and foot mountings to replace old and worn-out fuel units with new Sundstrand Fuel Units.



***This is the last of this series.**

SUNDSTRAND PUMP DIVISION

SUNDSTRAND MACHINE TOOL CO. ROCKFORD, ILLINOIS U.S.A.

2556 ELEVENTH ST.
ROCKFORD, ILLINOIS

fueloil & oil heat

THRUSH CIRCULATORS *Go to Sea!*

FOR VICTORY

ON ALL the "seven seas" United States Cruisers, Destroyers, Tankers, Escort Vessels, Coast Patrol Boats, Navy Rescue Tugs, Net Tenders, Sub-chasers and Mine Sweepers as well as Cargo Vessels and Lighters equipped with Thrush Water Circulators and other Thrush equipment are fighting the battle for Freedom! Thrush Circulators are used for heating, to circulate domestic hot water, cold drinking water and for many other purposes. We are proud that the quality of Thrush equipment meets the strict requirements of Naval work. While all our facilities today are devoted to winning the war, we are still making Thrush Circulators, Relief Valves, Reducing Valves, Heaters, Controls and other heating specialties which can be furnished for modernization or replacement work under Government priorities. Write Department C-7, for more information now.

BUY WAR BONDS

H. A. THRUSH & COMPANY, PERU, INDIANA

Names in the news

James Crombe has been named sales manager of the Henry Furnace Co., Medina, Ohio, according to Edward P. Hayes, vice-president. Mr. Crombe goes to his new post from C. A. Olsen Mfg. Co., Elyria, Ohio, which recently bought the Medina company. He formerly was an independent contractor, and later was connected with Marshall Furnace Company and Fox Furnace Company.

Frank E. Spencer, president of Burning Oil Distributors Association, Chicago, and chairman of the newly formed Distribution Division of OHI, has been elected to the Board of Trustees of Northwestern University, Evanston, Ill.

Denis McCormack, for the last 11 years manager of the Commercial Instruments & Controls Department of Julien P. Friez & Sons, Baltimore, has resigned to become general manager of the Fox Munitions Corp., Philadelphia, manufacturer of gauges, tools and other precision instruments.

Arnold Eckhart, president of Korth Oil Burner Co., and owner of Eckhart Mfg. Co., both of Roselle Park, N. J., has been elected president of the Roselle Park chapter of the International Rotary Clubs for the 1943-44 period.

Michael E. Shea, formerly head of the fuels section of the Office of Civilian Supply, has been advanced to director of the Fuels and Power Division in the new Office of Civilian Requirements.

Robert L. Griffiths, treasurer of International Heater Co., Utica, N. Y., has been elected vice-president of the Eastern Division of the National Association of Credit Men at the St. Louis meeting.

C. A. *Pearson,* formerly of the York Ice Machinery Corp., York, Pa., recently joined Thomas Shipley, Inc., and York Oil Burner Co., Inc., as assistant to President Samuel H. Shipley.

fueloil & oil heat

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JULY

1943

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VOLUME 2, NUMBER 3 OF FUELOIL & OIL HEAT, PUBLISHED MONTHLY BY HEATING PUBLISHERS, INC., 232 MADISON AVE., NEW YORK, (16), N. Y., BY CONTRACT WITH FOWLER-BECKER PUBLISHING COMPANY, OWNER OF FUELOIL JOURNAL (VOL. XXII, NO. 1), AND HEATING JOURNALS, INC., OWNER OF AIRCONDITIONING & OIL HEAT (VOL. XVI, NO. 7), JULY, '43.

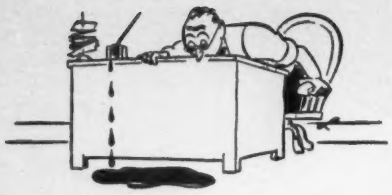
HEATING PUBLISHERS, INC., 232 Madison Ave., New York, 16
Lexington 2-4566

A. E. COBURN, *Editor* — ROBERT GRAY, *Business Manager* — A. G. WINKLER, *Advertising Manager*

Pacific Coast Representative: Don Harway & Co., 816 West 5th St., Los Angeles, Cal. Phone: Mutual 8512

SUBSCRIPTIONS

Yearly: $3
Canadian: $4.35
single copy: this issue 25¢



Editorial leaks

Members of the Chicago Rotary Club recently were treated to a preview of the postwar world by James Shelby Thomas, former president of Clarkson College, and more recently of Washington, D. C. It was one of those rocket-ship talks that made the civilian of 1965 sneer down his nose at Buck Rogers.

Among the things that Science, with a capital S, is cooking up for the country, are lighting, cooking and heating by radio, or its future equivalent; air conditioned agriculture entirely independent of the weather; domestic hot water supplied and regulated in volume and temperature from a central radio station; and remote control cooking and heating. This is not to deny the truth of the predictions Rotarians applauded as Mr. Thomas sat down, but rather to preview some of the intermediate work that must be done before that wonderful world is handed to the average homeowner.

The first man who buys radio heating for his home—like the first man to eat an oyster or buy an oilburner—will be an inveterate gambler. But he will be No. 2 on the list of gamblers, the first being that hardy dealer who stakes his reputation and his own money on the device.

Before this ultimate in carefree heating is well established, there will be many improvements in heating of a more conventional design. These, too, will breed their crop of skeptics who will shout the modern version of "get a horse," but progress toward whatever the ultimate may be, cannot, and will not, be stopped. There is little doubt that we are going to rebuild our own country, and possibly the world, in the next generation or two. These advances cannot be legislated into being: they must be developed and SOLD against inevitable resistance and inertia. Like most other advances, they must be pushed on the public by men of vision and courage who have faith in themselves and in each other.

The country is well supplied with such men today, many of whom in business suits and overalls, are fighting against odds for their very business lives. Their survival is important, for they represent the only channel through which the public can be brought the wonders of the world to come. Retail dealers and their sales and mechanical staffs are the key to future better living, without which the ideas of research men will remain laboratory curiosities, or fill warehouses with fabricated junk.

It may well be that we shall see wonders of everyday living to dwarf the imaginations of writers for the Sunday supplements. We may be offered weekend trips to the moon, and heat regulation by thought-control, but before these things come to pass, there must be a firm foundation of retail dealers and salesmen established to carry these services and products to a resisting public.

It is essential to preserve the kernel of retail distribution, from which the postwar world can grow. Without this dealer neuclus the benefits of the postwar world will be long denied the public. Individual manufacturers long have been helping sustain their own dealer organizations. It is significant and encouraging that the manufacturers as a group, through Oil-Heat Institute, now are helping collectively to insure dealer survival.

It is the duty of every dealer, both to himself and his industry, to join the local group that can serve him in his local area, and to work with that group in the promotion of its—and his—best interests. No one dealer can be larger than the whole industry in his locality, and he cannot better promote the local market alone than in concert with the others.

There is a tremendous post-war market to be served, and it can be served better, and at less expense by the concerted effort of every present dealer. Whether this future market eventually is by energy from the ether, or by conversion oilburners, somebody must sell and install it. The present oilheating dealer is the seed from which such future distribution must grow. Such seed must be preserved.

◈

Agitated over what he considered a breakdown in gasoline rationing control in Eastern states, PAW Administrator Ickes on June 8 again petitioned the War Production Board to give his office full control over gasoline and fueloil rationing. His criticism of fueloil rationing was less pointed than on gasoline, but his staff feels it needs both. PAW contends that since it is responsible for supply, it's impossible to effect a balance when someone else holds the checkbook in the form of coupon issuance. With gasoline supply certification for May of 356,000 barrels a day in District I, PAW states that actual consumption exceeded this by 15%. OPA's gasoline division, however, finds from its records that outstanding coupon validity has not exceeded PAW's monthly certification by more than 5%.

OPA also points out that PAW's monthly gasoline allocations are lower than minimum essential requirements in Eastern states, that these have been reduced monthly during the Spring, while agricultural needs were expanding.

PAW, of course, does not have a field organization comparable to OPA's 5,500 local boards, so if one agency were to determine policy and the other handle the work, the necessary sympathetic cooperation might not exist under the circumstances.

One other proposal said to be receiving consideration by top WPB men is to place fueloil rationing control in the new Office of Civilian Requirements, under Whiteside, and gasoline rationing control in the Office of Defense Transportation, under Eastman. It is felt by this group that since automobiles and trucks are transportation, ODT can hold tighter control over mileage. Again, these groups would have to use OPA's local boards.

Congress would probably favor giving full control to Ickes; WPB bigwigs would reasonably lean toward the OCR-ODT administration of rationing; the White House, as a guess, would favor status quo. From the standpoint of the oilheating public, the most important requirement is harmony between the Washington policy-making group and the field force down to local boards. Lacking that, a hopeless muddle might result. OPA men would have to be superhuman if they did not resent having all policy and method forced out of their hands, while still expected to do all of the field work. Setting up duplicate local boards for another agency would be unthinkable. So if any change were to be made, OPA chiefs should be genuinely convinced that the country could be better served.

They're on the Run — Give it the Gun!

THE turn of the tide, the long anxiously awaited event is on the horizon. The overwhelming supremacy on land . . in the air . . on the sea is within our grasp.

Yes . . The Axis sees this turn of the tide and "they're on the run" on all fronts with the long feared cases of invasion jitters.

So it's up to us to "give it the gun" to speed up the ever increasing superiority we are achieving by outdoing our fondest dreams of so-called maximum production.

The Luxaire plant has been doing just that, making that extra effort, "giving the gun" to production so the turning tide will get increasingly stronger and closer and closer.

BUY MORE WAR BONDS AND STAMPS

Luxaire

Warm Air Furnaces . . . Air Conditioning Units . . . Coal . . . Gas . . . Oil

THE C. A. OLSEN MANUFACTURING CO., ELYRIA, OHIO

fueloil & oil heat

FOUR AND ONE-HALF MILLION STRONG!

Today America's magnificent highway trucking system has become the greatest production line in history—an endless chain in which over 4,500,000 trucks play their vital part in the miracle of America's war production. Either as raw material, or finished product, almost every bit of war equipment travels by truck. With truck manufacture halted for the duration, existing trucks and the men who drive and service them are doing a mighty job. Mack is doubly proud that the *extra* quality, *extra* strength, *extra* long life built into every Mack now means so much not just to Mack owners, but to the country as a whole!

Mack

TRUCKS

FOR EVERY PURPOSE

ONE TON TO FORTY-FIVE TONS

BUY U. S. WAR BONDS

Mack Trucks, Inc., Empire State Building, New York, N. Y. Factories at Allentown, Pa.; Plainfield, N. J.; New Brunswick, N. J. Factory branches and dealers in all principal cities for service and parts.

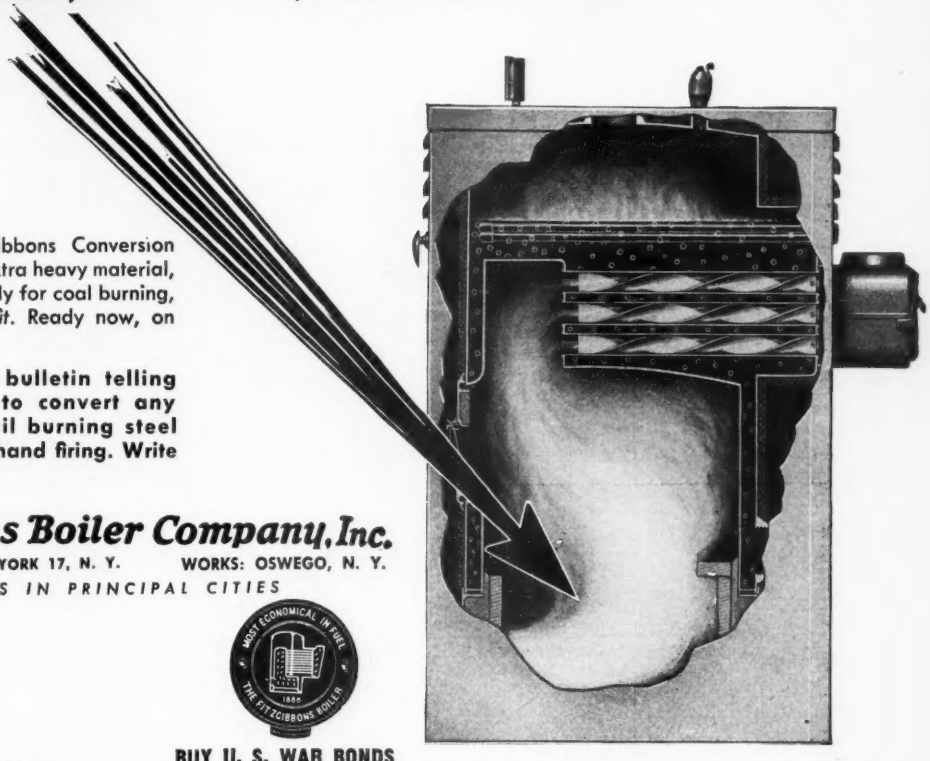
IF YOU'VE GOT A MACK, YOU'RE LUCKY...IF YOU PLAN TO GET ONE, YOU'RE WISE!

Now-CONVERSION!

They're ripe for it — many of these customers who have just emerged from a winter in oil-rationed homes, fussing with fireplaces, going to bed at eight o'clock to keep warm, worrying about oil deliveries as tank gages neared the zero mark. You'll find a responsive audience — NOW — for a conversion proposition.

Some of these yearners after home comfort may be under the impression that conversion is as involved as an appendix operation. Give them the facts — on Fitzgibbons steel boilers it's simply a matter of jacking up the boiler, sliding the old base out, sliding the new base in, releasing the jack. Something like changing a tire.

NOW — before they've forgotten what winter is like — line up these conversion customers.



This is a Fitzgibbons Conversion Grate. Built of extra heavy material, designed correctly for coal burning, guaranteed to *fit*. Ready now, on order.

There is a bulletin telling exactly how to convert any Fitzgibbons oil burning steel boiler to coal hand firing. Write for your copy.

Fitzgibbons Boiler Company, Inc.

101 PARK AVENUE, NEW YORK 17, N. Y. WORKS: OSWEGO, N. Y.

OFFICES IN PRINCIPAL CITIES

MOST ECONOMICAL IN FUEL — THE FITZGIBBONS BOILER — 1860

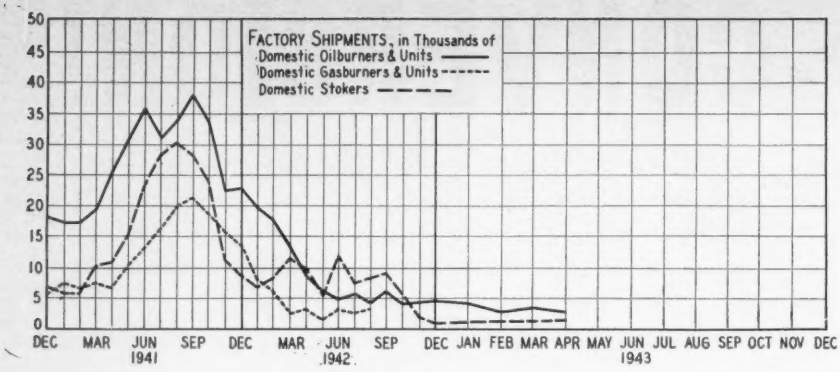
BUY U. S. WAR BONDS and STAMPS

Use only

FITZGIBBONS

CONVERSION GRATES FOR FITZGIBBONS BOILERS

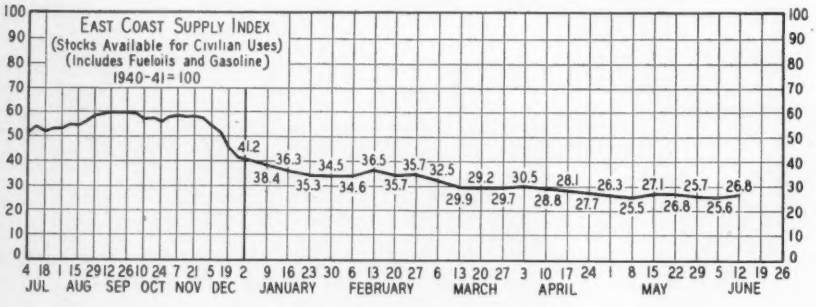
Fuel oil & oil heat


FACTORY SHIPMENTS, in Thousands of
Domestic Oilburners & Units
Domestic Gasburners & Units
Domestic Stokers
DEC MAR JUN SEP DEC MAR JUN SEP DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1941
1942
1943

Shipments of Oilburners and Units

Adjusted to include manufacturers other than the 137 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	APRIL			FOUR MONTHS		
	1943	1942	Percent Change	1943	1942	Percent Change
Conversion	1,173	6,080	—81.0	7,284	46,198	—84.3
Boiler units	882	1,170	—24.6	3,357	5,422	—38.2
Furnace units	574	1,696	—66.3	2,921	8,093	—63.9
All domestic	2,629	8,946	—70.8	13,562	59,713	—77.4
Commercial	3,818	5,196	—26.8	16,013	17,498	— 8.5
Total	6,185	14,142	—56.4	29,313	77,211	—62.0


EAST COAST SUPPLY INDEX
(Stocks Available for Civilian Uses)
(Includes Fueloils and Gasoline)
1940-41=100
41.2
38.4 36.3 35.3 34.5 34.6 36.5 35.7 35.7 32.5 29.9 29.2 29.7 30.5 28.8 28.1 27.7 26.3 25.5 27.1 26.8 25.7 25.6 26.8
JUL AUG SEP OCT NOV DEC JANUARY FEBRUARY MARCH APRIL MAY JUNE

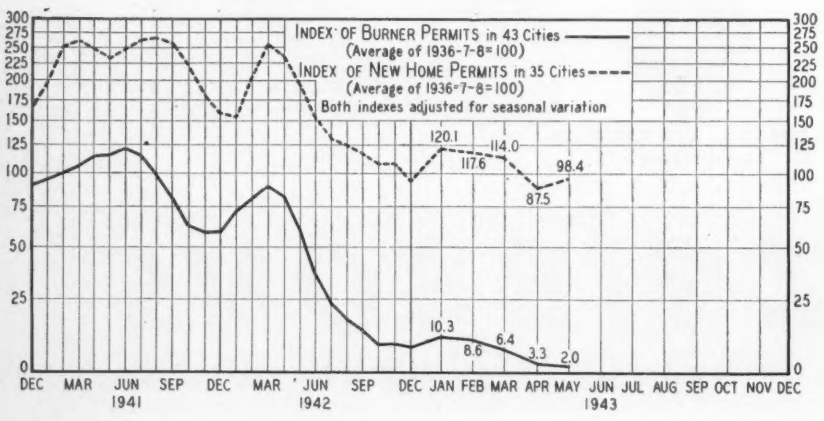
May Minimum Retail Prices: Key Dealers

	CONVERSION BURNERS		BOILER-BURNERS		FURNACE-BURNERS	
	Top price*	Low price	Top price*	Low price	Top price*	Low price
Highest	$340	$185	$645	$375	$715	$395
Lowest	200	169	400	299	400	335
May Aver.	256	174	504	350	498	366
Apr. Aver.	260	178	499	352	511	363

*Top price key dealers for conversion burners are those whose minimum retail prices are $200 or more; for boiler-burner and furnace-burner units (exclusive of ductwork) those whose minimums are $400 or over.

Price Index: Conversion Burners: Jan. 1940 is 100%

	WHOLESALE				RETAIL			
May	103.7	Six months ago	106.3	May	109.6	Six months ago	108.0
April	103.6	Year ago	107.5	April	107.8	Year ago	108.8


INDEX OF BURNER PERMITS in 43 Cities
(Average of 1936-7-8=100)
INDEX OF NEW HOME PERMITS in 35 Cities
(Average of 1936-7-8=100)
Both indexes adjusted for seasonal variation
120.1 117.6 114.0 98.4 87.5 10.3 8.6 6.4 3.3 2.0
DEC MAR JUN SEP DEC MAR JUN SEP DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1941
1942
1943

Oilheating Trends

ESTIMATED INSTALLATIONS of domestic oilburners and units in May were 43[illegible] down 95.7% from 10,140 in May a year ago. Burner permit figures from 4[illegible] representative cities were off 94.5%, while reporting dealers showed a decline of 96.9%. Installations in April were 26[illegible] in March 484, and in February 1,604, virtually all replacements.

PRICES: Insofar as it is possible to char[illegible] prices on so few sales, the May retail index was up nearly two points over April, the wholesale index up only 1/10th of a point.

STOCKS: The average reporting dealer had in stock 20 burners and units, compared with 24 in April and in the five previous months, more of a break than is explainable from the small total of the month's installations. Some may have gone back to factories in credit settlements. Factory stocks rose slightly during April, the latest month for which figures are available. Starting the month they were 36,687; the month ended with 37,316, both figures covering only domestic equipment. Shipments during the month were 2,629, so new production was around 3,258.

SERVICE INCOME: Average service department income for May of reporting dealers was $2,506, up 12.2% from $2,234 the previous year. In April this year it was $2,082, in March $2,032. The May increase is indicative of an early start on Summer service campaigns. Summer service this year will set an all-time record and buyers will be well rewarded in greater comfort from the fixed amounts of oil they will get under rationing.

RATIONING OBSERVATIONS: As of June 10, fueloil distributors report that 11.1% of their customers still have on hand some Period 5 fueloil coupons. More Eastern than Midwestern customers have them, comparatively 12% and 9%, reflecting larger Midwest tank sizes with larger final Spring drops.

The ration order amendment permitting Spring filling of underground tanks to hold them down where there was danger of ther being shifted by water in the ground, was important but not widely applied. One distributor in eight made use of this provision, and those who used it ballasted 6½% of their customers

anks. Applied to total customers of all reporting distributors, the number who got advance deliveries for tank ballast was 8/10 of 1%. As a surprise, most of this ballasting was done in the East, while the Mississippi and Ohio valleys were thought to be the hazard areas.

Stove rations given oilheating users to provide more warmth against deep fuel-oil ration cuts helped 2.8% of customers of the fueloil distributors reporting. Two per cent got coal stoves and 8/10 of 1% got auxiliary oil stoves. If the experience of these firms is representative, an indicated 50,000 coal and 20,000 oil stoves were thus made available during the season.

FUELOIL HANDLING: Two-thirds of fueloil distributors will operate with less retail delivery trucks next season than in pre-rationing days, according to those submitting figures on their fleets. Those who will use less account for a 15% drop. Applied to all reporting distributors, the net reduction in number of trucks used will be 11.2%. This drop is less than the number that are discarded as unfit in normal peace-time years. That figure runs upward of 15%. With new trucks not available, more patching is being done, but there's a limit to that, and if the war continues another two or three years with no new trucks available, the industry faces a delivery problem in 1944 or '45. Small operators who couldn't afford the Macks and the Autocars, will be hardest hit.

Yet in only one city for each twenty heard from is any study being given to joint use of trucks and routes. It's natural to resist tampering with status quo, but small operators cannot be too strongly warned that they're heading for headaches. Joint use of bulk plant facilities is getting more attention; one city in four is either doing some of it now or studying possibilities, and some mileage will be saved through this.

SELLING PRESENT BURNER STOCKS: Assuming that present burner stocks held by dealers and manufacturers were released for replacement installation (reported elsewhere in this issue), the number thus made available would give about one customer in fifty a new burner. Only the worst oil-hogs would be replaceable. Of the dealers questioned on this, 77% say they could readily make those sales to meet bona fide hardship cases. The other 23% are doubtful, think customers wouldn't spend the money in view of oil shortage scares. Only one dealer says he would hesitate to recommend the investment.

LOCAL OIL SUPPLY: As of June 10, 13% of Eastern cities heard from had a good supply of distillate heating oils; 53% reported supplies fair, and 34% found supplies tight. In the Midwest the percentages by number of cities were: 17% good, 83% fair, none tight.

STOKERS: Factory shipments of domestic Class 1 & 2 stokers in April were: anthracite 168, off 86% from 1,224 a year ago; bituminous 1,144, against 8,626, an 87% decline. Total shipments for January-April were 5,376 this year and 36,375 last year, a drop of 86%. In comparison, domestic oilburner shipments in the four months were 13,562, against 59,713, down 77%. Many of the oilburner shipments, however, were for Government uses, less true with stokers.

HOUSING: More than 1,100,000 new housing units for essential war workers have been started since July 1940, according to NHA. At the end of April, 813,000 had been completed and 309,400 were under construction. Some 180,000 units were completed and 186,000 others started in the first four months of this year. Of the total completed, approximately 454,000 were privately financed.

Oilburner* and Building Permits

	OILBURNERS				DWELLINGS			
	May		5 MONTHS		May		5 MONTHS	
	1943	1942	1943	1942	1943	1942	1943	1942
Albany, New York	0	0	0	10	..	..	..	..
Baltimore, Maryland	..	..	..	..	56	81	327	840
Binghamton, New York	..	..	..	..	0	0	0	13
Boston, Massachusetts	20	69	62	366	0	16	11	83
Bridgeport, Conn.	0	19	3	157	..	..	..	..
Buffalo, New York	..	..	..	..	10	..	..	..
Detroit, Michigan	0	105	0	383	579	562	2015	4092
Elizabeth, N. J.	0	5	2	45	0	0	40	5
Freeport, New York	0	1	1	38	..	..	..	..
Greenwich, Conn.	..	..	..	..	0	2	2	20
Hartford, Conn.	2	49	13	263	..	..	..	..
Hudson County, N. J.	0	50	25	368	..	..	..	..
Irvington, N. J.	0	1	1	47	0	8	0	31
Lynn, Massachusetts	..	..	..	..	0	0	0	25
Milwaukee, Wisc.	0	30	4	133	54	..	147	283
Minneapolis, Minn.	3	31	24	233	0	63	2	281
Morristown, N. J.	..	..	..	..	0	0	0	6
Mt. Vernon, New York	2	3	7	70	..	..	..	..
New Bedford, Mass.	2	7	14	100	..	..	..	..
New Haven, Conn.	0	0	1	54	..	..	..	..
New Orleans, La.	0	3	6	12	..	..	..	..
New Rochelle, N. Y.	0	1	0	33	0	1	0	19
Manhattan, Bronx, Rchd.	3	29	28	640	..	..	..	..
Norfolk, Virginia	0	120	149	545	10	39	167	744
Oakland, Calif.	0	5	2	9	..	..	..	..
Omaha, Nebraska	0	22	13	215	0	11	2	258
Orange, New Jersey	0	2	1	30	0	0	0	3
Paterson, N. J.	0	2	0	42	18	1	18	14
Plainfield, N. J.	..	..	..	..	0	5	6	25
Portland, Maine	0	1	2	58	0	4	11	18
Portland, Oregon	1	33	7	903	95	182	1188	583
Providence, R. I.	0	11	0	177	0	3	0	39
Reading, Penna.	..	..	..	..	0	0	0	8
Richmond, Virginia	0	6	1	59	0	5	33	192
Rochester, N. Y.	0	12	0	166	..	..	..	..
Rockville Center, N. Y.	1	2	3	58	0	0	0	14
Salem, Massachusetts	..	..	..	..	0	0	0	6
St. Louis, Missouri	1	49	27	205	0	25	2	240
St. Paul, Minnesota	1	37	6	329	0	5	1	159
Schenectady, N. Y.	3	24	10	141	..	..	..	..
Seattle, Washington	..	..	..	..	115	200	475	921
Springfield, Mass.	..	..	..	..	11	25	64	243
Stamford, Conn.	0	0	0	43	..	..	..	..
Syracuse, New York	0	1	1	19	0	1	24	60
Trenton, New Jersey	..	..	..	..	56	0	56	1
Utica, New York	..	..	..	..	0	0	0	57
Washington, D. C.	2	60	13	673	..	..	..	..
West Orange, N. J.	..	..	..	..	0	3	0	17
White Plains, N. Y.	0	5	9	40	0	1	0	3
Wilmington, Delaware	0	6	3	91	346	0	400	13
Worcester, Mass.	2	23	9	159	..	..	..	..
Yonkers, New York	3	10	8	115	..	..	..	..
Totals	46	834	455	7029	1350	1243	4983	9316
Percent Change	—94.5	..	—93.6	..	+8.6	..	—46.5	..

*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

AIR CONDITIONING CONTROLS ☆ COMBINATION PRESSURE AND LOW WATER ☆ BOILER FEED WATER PUMP CONTROLS ☆ EXPLOSION PROOF CONTROLS ☆ OIL BURNER CONTROLS ☆ OVEN TEMPERATURE CONTROLS ☆ LIMIT CONTROLS ☆ REFRIGERATION CONTROLS ☆ VISAFLAME (LIGHT OPERATED CONTROL) ☆

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Delivery Spacing

A Simplified Automatic System Under Rationing

THERE HAS BEEN MUCH discussion pro and con in regard to the use of various types of delivery systems under rationing conditions.

Many companies previous to rationing were set up on delivery systems based on use of Degree Days. These systems under normal circumstances had worked out very efficiently and were, properly run, an excellent guide in the proportionment of consumer's needs so that deliveries could be made in a manner to obtain the largest drops possible commensurate with the consumer's heating needs and the weather passage.

Under the conditions of rationing during the first year many companies discarded such systems. Because of the abnormal change in burning conditions, the K-factor that had been established as a guide in the customer consumption was very much distorted.

Consumers did not burn oil in a normal fashion; many of them used fireplaces or grates until late in the heating season and did not start their furnace until two or three weeks after the normal time.

Consumers had the preceding summer in many cases insulated partially or wholly the houses in which they lived. A great number of them equipped their homes with storm windows and did other things which decreased the heat leakage from their homes.

This meant the K-factors already established as to the burning rate in consumers' homes were practically useless to those companies who had set them up on normal burning performances.

On top of this there was the rationing system itself which due to its many mechanical features did not fit in well with the functioning of degree day systems.

A few companies found that with several changes and the exertion of much closer inspection of consumers' delivery cards they could still utilize to some extent the advantages of their previous systems. However, by and large, most companies operated when they could, as they could, according to consumer demand. This naturally led to a great waste in fueloil truck effort which was to a very large part unavoidable because of the lateness of the rationing program initiation and the other factors noted.

The heating season of 1943-44 should see a betterment in fuel delivery effort.

It is true that the supply situation is by no means one that can be called stable; there are too many unforeseeable factors, largely under the head of military demands, to have complete assurance as to the particular supplies that will be available in individual territories at any given time. These distress area requirements were particularly troublesome last heating season and were only relieved by very unusual and "pinch hit" transportation methods.

More Orderly Supply

While the supply situation for this coming season is unpredictable in some aspects, nevertheless we can expect a more orderly procedure than that of last year. Definite plans are being set up to determine various area demands so that proper provision may be made for the supply of those particular areas in spite of the many difficulties which are faced.

Such being the case it might be best for the purposes of this memorandum that the local fueloil deliverer forget the supply situation.

As far as local retail delivery effort goes, the dealer might beneficially turn his attention to the manner in which he, in his local delivery, is going to care for his retail customers.

The following suggestions may be of interest:

(1) The fueloil dealer can request that consumers deposit with him their coupon sheets immediately after they have received them, presumably no later then July.

(2) If they do not deposit, but say they are going to get oil from him, he can still take a record of their coupons, and the gallons alloted per period.

(3) With these factors known, and the months of August and September to make an analysis of each customer's position, the distributor may set up a system to obtain efficient and orderly deliveries of sizeable quantities during the months ahead.

One definite suggestion of merit as to how this might be done is as follows, or some variation of the following:

(1) The fueloil dealer could have printed up a number of manila envelopes, as illustrated on the next page.

(2) This is a combination of an envelope with printed form on one side of it.

(3) Upon receipt of coupons from a customer, the fueloil man would fill in on the envelope the consumers' name and address and fueloil tank size; also, checking the square noting that coupons were deposited.

(4) He would then note in the proper space the total gallons rationed to the consumer for the season. For example, let us say 1200 gals.

(5) In the area in which the fueloil dealer operated, a normal heating season would encompass a certain number of Degree Days. It is true that this would vary from winter to winter somewhat, but for our purposes the average of the Degree Days per heating season for the past ten or fifteen seasons would be the best rule of thumb figure to use. For our

purposes, take the figure of 6000 Degree Days, which you will see noted on form example.

(6) If we then divide the number of Degree Days in the normal season, which we have set at 6000, by the rationed gallonage which in our example is 1200 gallons, we then find that for every single gallon rationed, the consumer must keep his home heated for 5 degree days, which you will see noted on example.

(7) Let us now consider the size of the consumer tank and the largest possible gallonage per delivery which we feel could be safely provided for in spacing our deliveries. The consumers tank is 275 gallons in our example. At the consumers burning rate, a 75-gallon reserve safety factor would be more than ample. As a matter of fact, in this particular example under normal conditions this safety reserve could be decreased to considerably less. However, if we have a reserve set of 75 gallons, it would still give us an opportunity to space our deliveries so that at each delivery a quantity of 200 gallons could be obtained.

So for example purposes, let us figure that our desire is to deliver in the quantity of 200 gallons at each delivery, which, with the large tank filling delivery during the summer, would mean that the total 1200 gals. could easily be delivered in not more than 6 deliveries.

(8) Now 200 gallons at 5 D.D. a gallon is presumed to last the customer for 1000 D.D. This would mean that in the spacing of our deliveries, a delivery could be dispatched every 1000 D.D.

(9) We next have to consider the ration coupons which are available and the manner and quantity in which they are available during each period division as set up by OPA, so that we can match up our desired delivery effort with the availability of ration coupons.

The form of the envelope for this purpose sets up a delivery record which consists of four columns: DATE, GALLONS DELIVERED, TOTAL IN TANK, DEGREE DAYS NEXT DELIVERY. It also sets up seven columns which are headed according to the type of coupon. Space is provided for the insertion of the gallons rationed by the coupons within the heating periods according to the way in which the consumer's ration sheet has been tailored by the Rationing Board.

In our example, the ration coupons for the 1200 gallons might show on the coupon sheet as follows: Change Coupons 200 gallons; Inventory Coupons 200 gallons; Period 1 Coupons 200 gallons; Period 2 Coupons 150 gals.; Period 3, 150 gallons; Period 4, 150 gallons; Period 5, 150 gallons. With this knowledge we can carry on as follows:

(1) In the proper spaces directly under the headings: CHANGE, INVENTORY, PERIODS 1, 2, 3, 4 and 5 should then be noted the gallonages available for each period as per above. It will be observed that each one of these columns is further sub-divided into two columns headed "USED" and "BALANCE," respectively.

NAME Grayson, John W.
ADDRESS 14 Turner Ave
TOWN Jonesport
TANK SIZE 275 GAL. SAFETY RESERVE 75 GAL.
COUPONS DEPOSITED.... [X]
COUPONS NOT DEP.... [ ]

RATION GALLONS FOR SEASON 1200
DEGREE DAYS NORMAL SEASON 6000
BURNING RATE of RATION (divide degree days by ration gallons)
1 gallon = 5 deg. days
SPACING OF DELIVERIES (Subtract safety reserve from total storage. Deliver difference according to d.d. passage and coupon validity)
200 gallons = 1000 deg. days

DELIVERY RECORD

DATE	GALLONS DELD	TOTAL IN TANK	DEGREE DAYS NEXT DEL.	CHANGE coupons 200 gal.		INVENTORY coupons 200 gal.		Per. 1 coupons 200 gal. Oct 1		Per. 2 coupons 150 gal. Dec 2		Per. 3 coupons 150 gal. Jan 5		Per. 4 coupons 150 gal. Feb 6		Per. 5 coupons 150 gal. Mar 12		
				USED	BALANCE	USED	BALANCE	USED	BALANCE	USED	BALANCE	USED	BALANCE	USED	BALANCE	USED	BALANCE	Sept 30
7/21/43	260	275	1000	10	190	50	150	200										
11/23	200	275	2000	50	140	150												
12/21	190	275	3000	40	100					150								
1/12/44	205	275	4000	55	45							150						
2/10	195	270	5000	45										150				
3/13	150	220														150		

Delivery control *to be printed on face of large manilla coupon envelope.*

(2) The coupons and any other pertinent information would then be put into the envelope and the entire material filed, ready for use as soon as the summer fill-up program was initiated.

After each individual consumer is set up with an envelope in the fashion noted above, it would also be necessary to make an alphabetical list of customers. This could be done either by individual cards or by the use of a notebook. If the dealer already has an alphabetical file on his consumers, this same file could be used.

Secondary Record

The purpose of such alphabetical file is this: The envelope is used as a coupon container and also as a recording form designating the Spacing of Delivery according to the passage of Degree Days and Coupon Validity. The envelope after the first delivery is made will be filed under the number of Degree Days at which the next delivery will be necessary. This will mean that there will be no alphabetical continuity as far as the envelopes themselves are concerned. Such being the case, if a consumer called up any time during the heating season and wanted to know the number of coupons they had left or other information, it would take considerable effort to locate their particular envelope unless some record were kept in alphabetical form.

With a secondary record which, for our example we will figure as an alphabetical listing in a notebook, the system operator at the time of changing position of the envelope in the delivery file would at the same time note beside alphabetical list of the consumer's name, the number of degree days to which the consumer's envelope had been advanced. This would be done at every refiling of the envelope. If a consumer called up on the telephone and it was necessary to locate the file quickly, refer to alphabetical file—note Degree Days under which the envelope was located, then go to Degree Day file and pull the record.

The actual operation of the deliveries would be as follows:

(1) The system operator in making the summer fill-up would presumably fill the tank with as large an amount as it would take considering its capacity and the ration coupons valid for use.

(2) In the example, the summer fill-up could be all the coupons of Period One plus the Inventory Coupons, plus the Change Coupons, or an amount up to 600 gallons. In this case the tank size would govern the amount delivered. Let us assume that there were 15 gallons in the tank and that 260 gallons were delivered.

(3) Upon the drivers' return to bulk station he would pass in his slip for 260 gallons. This slip would go to whoever was taking care of the posting of deliveries; they would pull the envelope file which on this first fill would be in alphabetical order.

(4) Under Delivery Record the date of delivery would be noted; 260 gallons noted, and under the Degree Days Next Delivery column would be entered 1000 degree days, after the passage of which, a delivery of approximately 200 gallons would be scheduled.

(5) At the same time, the coupon sheet would be taken from the envelope for tearing off coupons to account for delivery of 260 gallons made. This would mean 200 gallons from Period Number One which would use up all the available coupons in this period leaving no balance; 50 gallons from inventory coupons which would leave a balance of 150; 10 gallons from change coupons which would leave a balance of 190 gallons.

(6) The amount of coupons in gallons taken from the coupon sheet and the gallonage balances left would be posted in the proper spaces on the form on the front of the envelope.

(7) At this time in the permanent alphabetical notebook list beside the customer's name would be noted 1000 Degree Days so that the consumer's envelope could be easily located if necessary.

(8) The remaining coupons would then be returned to the envelope and the envelope placed in Degree Day Tickler file so that it would come up after passage of 1000 degree days.

This same procedure would be carried out at each delivery:

(1) The system operator, in making up his records for delivery, notes that the quantity delivered cannot be more than the valid coupons will allow.

(2) The actual delivery made by the chauffeur is observed when he returns delivery slip to office.

(3) The office force does the posting of the delivery, making the proper entries, tailoring of coupons, notation of

permanent alphabetical list and return of envelope file to the proper degree day tickler position.

As season progresses it will be found that the quantity of coupons valid against delivery will become less. Toward the later part of the season it will be necessary for whoever makes up delivery orders to be more careful in their observance of the number of coupons which are valid, as the amount of oil possible to deliver may on occasion be bound by the coupons valid rather than the empty space in the tank.

It will also be necessary for whoever does posting of delivery to watch that the next delivery as set up by D.D. takes into consideration the amount of oil that is available for burning before a proper safety margin is reached. As the size of deliveries may decrease, governed by the coupons valid, so will the degree days before the next delivery become less if the safety reserve is maintained.

The spacing of delivery suggested should help materially in obtaining larger drops.

It also makes it possible for a fueloil dealer at any time to refer to the record of a customer to determine exactly how deliveries were made in connection with available coupons, and to check coupons left.

A dealer by the individual watching of his customer's use of oil can warn such consumer if he is burning oil too rapidly as against the manner in which his rationed amount compares with the total heating season or the various periods.

Any change in coupon gallonage value would have to be compensated for by readjustment of the burning rate of oil

(*Continued on page 55*)

Coal Dust and Oil

Much Future Heating May Be Done with "Colloidal Oil"

Prophets in Washington, and out, are predicting that much of our commercial heating in the immediate future, and our domestic heating in the more distant future, will be done with a fuel mixture containing 40% coal dust, and 60% fueloil. They see this "Colloidal Oil" manufactured locally and readily available to customers in most of the larger markets now supplied with heating oils, and at prices that will make it competitive with unmixed oil. A supply of Colloidal No. 6 will be available commercially in New York during the next heating season, and other plants may be completed on other metropolitan areas before the heating season is over.

WHEN Mrs. Jones calls for oil in 1965 she may order "No. 2, 60-40" and get a drop of black fluid about the color and consistency of post-office ink. As a matter of fact, it may be a first cousin to ink, according to present predictions, for it will be a colloidal mixture of 40% finely ground coal in 60% No. 2 fueloil. She will burn it in her present mechanical oilburner, or its future counterpart, and get slightly more heat per pound of fuel than she now gets from straight, unmixed light oil.

Mrs. Jones' use of Colloidal Oil in her home is still in the future, and subject to some further study and development, but her husband's office and factory may be using colloidal No. 6 this winter. A 60-40 mixture of No. 6 fueloil and coal dust will be available in New York for commercial and industrial use before the first of September, and may be available in other metropolitan centers before the end of this year. Metropolitan Petroleum Corporation, New York, is building a plant that will turn out 600,000 barrels of colloidal No. 6 a year, or about 70,000 gallons a day. Several other plants now are in the planning stage.

Coal dust and oil mixtures are nothing new. Extensive experiments were conducted during the last war, and before. The work has been continued, chiefly in Europe, almost constantly during the period between the wars, and has been revived in this country now in an attempt to stretch the available heavy oil supply.

Original tests were made with coal dust as it comes from the pulverizer. Particles of pulverized coal range in size from 10 to 400 microns, or about twice the size of cement particles. These relatively coarse pieces of coal would settle out of the mixture, and attempts were made to stabilize it by the addition of soap, tar and other "fixing" agents. Few of these combinations made a mixture sufficiently stable to be stored or easily handled under normal conditions. Finer grinding, the real secret in the manufacture of stable oil-coal mixtures, cost too much by ordinary pulverizing methods, and the bulk of the work formerly was confined to finding a fixative that would hold the coal dust in suspension without seriously affecting the quality and handling characteristics of the mixture.

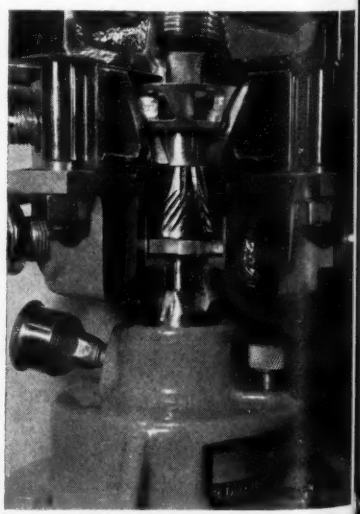
Quarter to Half Coal

Tests conducted during the last year by the U. S. Bureau of Mines and reported the "Colloidal Fuel Program," by PAW, have covered mixtures ranging all the way from 25% to 52% coal in the oil. They tend to show that the maximum presently feasible to handle in installed oil piping is a 42% coal, 58% heavy oil mixture.

First tests were with coal pulverized to 90% through 250-mesh screen, indicating particles of 60 to 100 microns in size. Coal in this mixture did not stay in suspension long enough to permit storing the oil, though it is reported to be used satisfactorily where the mix is run directly to the burners and used as it is made. This is feasible only where large quantities of fuel used makes it economical to manufacture the mixture on the job.

Attention then was turned to making a true colloidal mixture. Pulverized coal from a Ball mill or other common pulverizer (150 microns) is mixed with hot No. 6 oil, and run to a colloid mill. This electrically driven colloid mill is essentially a rubbing mill with a free head moving at 1750 rpm, with control of the space between the fixed and moving heads establishing the fineness of the finished product. Coal particles in the experimental runs were reduced to below 3 microns in size and thoroughly colloidized with the oil. This produced a "free-flowing fuel that can readily be stored in tankage at the plant and delivered into barges, tank cars, or tank trucks to the ordinary loading rack, and thence to the tank of the customer," according to the Bureau of Mines report, which continues. "The coal and oil thus treated will result in a fuel that will not permit the coal to settle out and, therefore, will require no agitation at the point of consumption.

These coal particles reduced "below 3 microns" (or all through a 450-mesh screen) would be comparable to the water particles in fog, which range from 1 to 40 microns. Pollens usually range in size between 20 and 60 microns, and bacteria from 1 to 15 microns, Apparently these minute coal particles do not have



Colloid Mill *in cut-away view showing large water-jacketed areas around the toothed rotor.*

enough bulk and weight relative to their surface to move by gravity through heavy oil and settle out of the mixture.

Tests also showed that the colloidal oil has a higher heat value per gallon than straight fueloil, and therefore, flame propagation will be slightly faster than with unmixed oil. This indicates that there will be no necessity to change fireboxes or brick work when the colloidal oil is used in place of straight No. 6. The increase in flame temperature is about 250° above that of straight Bunker C oil. In boilers it is expected that heat transfer will be improved due to greater furnace temperature, and stack temperatures will be lower for a given steam output. Also the amount of excess air for complete combustion is smaller. These features may provide greater oil savings than indicated by the percentage of coal used in the mixture.

Under the suggested process for preparing colloidal fuel, one ton of coal will replace about 180 gallons of No. 6 oil. While the heat content of both the coal and oil varies, the heat output of a colloidal oil containing 40% coal shows the equivalent of a 3% heat increase on a volume basis compared with straight No. 6 fueloil, according to the Bureau of Mines. Table 1 shows a comparison of some of the more important economic factors of the various industrial fuels.

Next Season in New York

Colloidal oil will be made available this winter in New York by Metropolitan Petroleum Corporation, which has been working closely with Colloidal Oil Corporation, consultants on colloidal oil development. In tests made by these companies with a 40% coal dust and 60% Bunker C oil mixture, the fuel was burned without changing the piping, both in a single pipe arrangement from the pump to the burner, and in a two-pipe recirculating system. Tests were run with Todd steam atomizing burners, Babcock & Wilcox mechanical atomizing burners, and in two Petro horizontal rotary burners. No difficulty was experienced with any of the equipment when the change-over from Bunker C was made simply by opening the colloidal oil line. Readings taken while using the Todd steam atomizing equipment showed CO_2 of 11% to 11.2% and flue gas temperatures ranging between 385° and 495°, carrying steam pressures of 40 to 51 pounds on a 134 hp boiler.

Table I—Comparative Economic Factors of Industrial and Power Fuels

Fuels	Heating value per lb. B.t.u.	Vapor loss Storin gas escaping approx. per cent	Storage per ton of fuel	B.t.u. per cu. ft.	Temp. of flame theoretical degree	Temp. of furnace useful deg. F.	Relative heat value per unit storage per cent	Relative low heat value per unit of storage per cent
Liquid coal	17,000	3¾	29.5	1,152,000	3,700	3,220	100.00000	100.00000
Colloidal coal and oil	16,600	4	30.0	1,106,556	3,660	3,100	96.00000	95.75000
Mexican oil	18,500	7	34.0	1,091,500	3,460	2,850	94.70000	91.20000
Pittsburgh coal	13,500	3½	41.0	658,800	3,704	3,100	58.00000	58.25000
Natural gas (cu. ft.)	1,000	11–14	...	.....	3,400	2,750	0.00077	0.00067
Manufactured gas (cu. ft.)	500	10	...	.....	3,340	2,600	0.00039	0.00036
Coke oven gas (cu. ft.)	500	..	...	.....	3,337	2,650	0.00039	0.00036
Producer gas (cu. ft.)	130	10–14	...	.....	2,831	2,000	0.00010	0.00009
Blast furnace gas (cu. ft.)	90	3½	...	.....	2,112	1,800	0.00007	0.00007

Table II—Colloid Composite

45% Colloidal Coal and 55% No. 6 Oil, 18.9 A.P.I.
(Special Heavy Mixture)

Viscosity S.S.F. at 130°F.	277 sec.
Viscosity S.S.F. at 210°F.	51 sec.
Specific Gravity at 60°F.	1.28
Weight per gallon	10.6 lbs.
Weight per cubic foot of composite	79.29 lbs.
Weight of coal per cubic foot of composite	35.68 lbs.
Weight of oil per cubic foot of composite	43.61 lbs.

Table III—Cost of Producing Colloidal Oil

40% Colloidal Coal and 60% No. 6 Oil

Cost of coal per pound (@ $6 per ton)	$.003
Cost of oil per pound (@ $1.65 per bbl.)	.0047
Pounds of coal per gallon of composite	3.64
Pounds of oil per gallon of composite	5.47
Cost of coal used per gallon	.0109
Cost of oil used per gallon	.0257
Cost of preparing coal for the mix	.0021
Total cost per gallon of Colloidal oil	$.0387

The commercial 60-40 colloidal oil to be offered has a weight of 9.26 pounds per gallon, according to J. G. Coutant, vice-president of Colloidal Oil Corporation. This indicates a specific gravity of 1.11. Being heavier than water, the mixture may be stored under water, and since it has a molecular cohesion greater than water, it will not give up oil to the surface when cold. The mixture flows freely at 90° F, and has a viscosity slightly lower than Bunker C, Mr. Coutant reports. Properties of a 55-45 colloidal oil, slightly heavier than that proposed, are shown in Table II.

Bituminous Favored

Both anthracite and bituminous coals were used experimentally with results favoring bituminous coals. It was found that anthracite silt, which can be obtained above ground in Northeastern Pennsylvania, was a possible component, but the cost of preparing it for mixing by present methods would be higher than for bituminous coals. Bituminous coals having a fairly high volatile range and a low ash content lend themselves readily to use in colloidal oil. Mr. Coutant points out that ash particles ranging down to 0.1 microns in size, or about the size of the particles in tobacco smoke, are non-abrasive and not injurious to health. Also, due to its relative mass for heat storage, it cools instantaneously in the presence of black surfaces, so coalescence and slagging are avoided.

It is calculated by the Petroleum Administration for War that equipment for the production of 300 tons of 60-40 colloidal oil a day, using 120 tons of coal and 1065 barrels of oil, will require an investment of $125,000. This would include a 5-ton pulverizer at $25,000, a 15-ton colloid mill at $15,000, bunkers and conveyor equipment at $20,000, miscellaneous equipment and incidentals at $20,000, engineering plans and supervision at $20,000, and buildings at $25,000. This investment, amortized on a 10-year basis would indicate a cost of five cents a barrel on 256,320 barrels processed in a 360-day year. A breakdown of the per gallon cost of production of colloidal oil as estimated by Mr. Coutant is shown in Table III.

All this preliminary work probably will be supplemented greatly by future research and development to perfect a trouble-free commercial and industrial fuel. Oil men point out that varying grades and types of residuals react differently when blended together, and colloidal fuels made satisfactorily with a residual from one type of refining may be entirely unsatisfactory when made with residuals of another origin. This is but one problem future research must solve.

Research and development on satisfactory colloidal oils for domestic use is

practically all in the future, but a start is being made. With lighter oils and finer burner mechanisms, it is probable that the coal particles will have to be smaller.

What may be possible in this direction is indicated by foreign work already done. The Japanese have ground coal to sizes ranging from 0.1 to 10 microns, or a range in size from the particles in tobacco smoke to that of pigment in paint. This mixture has been stored for 450 days without any noticeable tendency to settle out of solution, and therefore might be suitable for domestic storage.

If this coal contained 10% ash, particles ranging in size from .01 to .1 microns would be within the range of the individual particles in tobacco smoke, and would not readily settle out of the air to blanket a neighborhood with the fly-ash (3 to 70 microns) so familiar to those who use pulverized coal in industrial plants.

Whether this finer milling of coal can be accomplished in sufficient quantities, and at a price low enough to make it feasible for domestic use, will have to be worked out. Present plans for commercial production of a colloidal No. 6 oil and coal mixture this fall and winter afford a proving ground for the heavy fuel mixtures. Oilheating men will watch the development with great interest.

Summer Fill-Up Oil Being Made Available

SOLUTION TO A SERIOUS problem affecting fueloil distributors and their customers was reached June 23 when the Petroleum Administration for War agreed to revise its previous policy and to permit delivery to Eastern States of enough light heating oil for Summer fill-up of consumers' tanks.

With actual stocks of No. 2 and 3 in the East less than a third of the amount needed to fill all home heating tanks, and with very little coming in, the situation was serious for the industry, since there had been so much publicity in connection with the new rationing program urging people to fill their tanks this Summer. If oil distributors had had to tell these people that there was no supply for the purpose, public apprehension would have been increased.

PAW's plan had been to emphasize military stockpiling, along with hauling residuals and gasoline for the Summer, then go strong on heating oils in September. But they have now consented to start the fueloil movement in early July. Not all tanks can be filled in July, but enough supply is expected to even out the work over July, August and September.

Eastward transportation of petroleum products is holding up well. The Midwest floods with the break in the "Big Inch" at Little Rock did much less damage than expected. It would be more accurate to say that they did large damage, but the impact of the damage was minimized through tireless effort by War Emergency Pipelines, Inc., the Petroleum Administration and the Office of Defense Transportation. Awarding of halos should not be limited to bomber pilots. A measure of the flood-caused disruption is in the weekly data on tank-car arrivals in the East. Before, during and after the flood, daily averages are: (week ending date shown)

May 15	980,326
May 22	884,768
May 28	890,897
June 5	898,744
June 12	968,535
June 19	962,056

Opinions on next season's supply of home heating oil continue to be varied. While most large oil companies, many of them having executives on Government committees, see a comfortable supply, the PAW fears a crude shortage developing by the year-end. There is some justifiable apprehension over the declining percentage of distillate oils being run from a barrel of crude; catalytic cracking to produce aviation gasoline cuts distillate yield. Another problem affecting No. 2 and 3 oils is the present excessive yield of residual oils. When the price section of OPA gave refiners higher prices to stimulate heavy oil production (it was relatively scarcest), with a sliding scale of values based on gravity, the idea worked with a bang. Today many small refineries are producing no distillates—find it more profitable to take off gasoline and call everything else residual, getting the high-gravity price for it.

The Petroleum Industry War Council, in its June report, is pleased that residual percentages are up, but finds production higher than consumption, which will have to be corrected when stocks pile up.

All of these influences, however, are controllable. Government agencies have authority to regulate refinery runs to product percentages, also to revamp price structures, if necessary, to stimulate a particular product.

June Report Favorable

Recalling that the PIWC was created by PAW, and hence influences its thinking, the June report is on the bright side. It estimates that combined domestic and export demand in the fourth quarter of this year will be 320,000 barrels a day greater than in the same period last year. Then it estimates supplies available to District I in the same period as 524,000 B/D higher than last year, or an improvement in supply of 204,000 B/D. Its June estimate of supply available to District I for the next three quarters is: (thousands of barrels daily)

	June 1943	*3rd Q 1943*	*4th Q 1943*	*1st Q 1944*
Tank Cars	934	858	862	792
Private Pipe Lines	204	204	201	197
War Emergency Pipe Lines	...	165	285	354
Barges & Ocean Tanker	201	249	218	176
Local Production	66	64	61	58
Total Supplies	1,405	1,540	1,627	1,577

The indicated decline in tank car deliveries is because, as the large pipelines are completed to the East, rail cars now hauling from Norris City, Ill., will have to go back into the longer Texas haul.

The month's most important long-range oil supply development was the announcement that a 383-mile 16-inch crude pipeline is to be constructed as quickly as possible from Sundown, Tex., to Drumright, Okla. Sundown is in the much-discussed Permian Basin of West Texas, where upward of 300,000 barrels daily producing capacity is being withheld through lack of transportation to get the oil out. The new line, planned for completion next March, will release 100,000 B/D of this frozen capacity, and tap Indiana Standard's system at Drumright for pumping to the Company's Whiting, Ind., refinery.

Insulating for Profit

Some Things Oilburner Dealers Should Know

By

A. E. Coburn

Running a successful insulating business requires experience. Some of it you can be told about in advance. More of it you will have to acquire for yourself, but the lessons learned by O. K. Moore and his associates in Chicago will be a valuable start along the road for any dealer in oilheating equipment who is contemplating a sortie into this new field.

YOU CAN MAKE MONEY in the insulating business if you have been reasonably successful as an oilburner dealer, according to O. K. Moore, but don't expect to jump into it as a wartime short-cut to some quick money. It's not that simple, and until you have learned your way around in the business you are in for some education.

Mr. Moore knows what he's talking about, for he is just now coming out of his own training period. From his experience he is planning to make insulation a permanent part of his unusually successful oilheating distributorship.

Together with John Gibson, sales manager, O. K. Moore operates the Automatic Oil Heating Company at 4318 West Chicago Ave., Chicago. They have built the business in the nine years of its existence into a distributorship that sold 1265 Timken Silent Automatic oilburners and units in 1941; 911 of them at retail and at an average price of $366.00. Not bad, as oilburner dealerships go. But when war blacked out the oilburner business a year ago, the company was facing the old problem that has become so familiar to oilheating men: What to do?

Last August the company did its first insulating job, and it looked like the start of a new life. It was, in fact, but a different life. The set-up looked perfect. The company had fifteen oilburner salesmen, who in 1941 had sold from 7 to 140 burners and units each. They were good salesmen. The company also had three trucks equipped with units for blowing mineral wool, and eleven mechanics to man the trucks. When all was ready, the company had $15,000 invested in its new insulation business.

"We had 8,000 oilburner users, and all of them satisfied," John Gibson relates. "We have been getting leads for new burners and units from them for years, and every salesman knew he could depend on his customers to feed him business. But it didn't seem to work that way with insulation. In the first place, 60% of our customers' homes already were insulated, and they didn't need or want any more. Further, we found that insulation has no romance—at least the girls don't talk about it around the bridge table, or otherwise discuss it among themselves. An oilburner is a living thing, and good or bad, people discuss their experiences and problems with oilheating, but insulation doesn't move after it's installed —or shouldn't—and people forget it. At least they don't talk about it, and that's the only way our customers have of finding prospects for us.

Salesmen Slow to Change

"Our salesmen are excellent oilburner men," Mr. Gibson continues. "They are used to a mild form of prosperity, having been making from $5,000 to $10,000 a year for a long time. The better men have been with us for years, and they are creeping well into middle-age. A fellow can't change his manner of working, thinking and living over night at 55—or 45—and when sales don't come after he has worked a tried and proven routine, he tends to get sour on the proposition. It takes time for him to change his manner of thinking, and his method of selling. During this change-over he must be helped and encouraged, until he is back in stride in his new work. It may not happen to other dealers, but that's what we found in our own organization. Few really good oilburner salesmen will be equally good immediately selling insulation, so you can't expect them to turn in their usual volume of business during this transition period. There are exceptions, and we have them—four of them that have been held over from the original oilheating sales force—but the new insulation salesmen generally work differently, and will produce more business more quickly than the older oilburner men."

Selling insulation is largely canvassing, Mr. Gibson explains. There may be a dozen prospects for insulation in a block, where there will be only one oilheating prospect. There is no way to find them but to smoke them out; plain, old-fashioned leg work and doorbell ringing. Most successful oilburner salesmen haven't done that kind of selling for years, and have no desire to return to it now. They are used to selling a different type of product and service, and selling it in a different way. The average unit of sale for insulation is about one-half that for oilheating equipment, in the experience of Automatic Oil Heating Company, which tends to dampen the enthusiasm of successful former oilburner salesmen.

"Except for the product, selling insulation isn't much different than selling brushes and aluminum ware," says Mr. Moore. "There are no ashcans at the

O. K. Moore (*seated*) and **John Gibson,** *who have made insulation a permanent part of their oilheating business at 4318 West Chicago Ave., Chicago* (*top*).

Eagle Insulating Division
Automatic Oil Heating Company

(Figures are for only two of the Division's three trucks)
April, 1943

	Square Feet	Amount	% to Gross Sales
GROSS SALES	72,690	$11,012.41	....
Material	4.98¢	3,626.82	32.93
Labor	3.50¢	2,546.84	23.12
Misc. Supplies (Lumber, etc.)	.11¢	87.02	.79
Truck Expense (Gas, Oil, Tires)	.08¢	62.60	.56
Repairs to Truck and Blower	.14¢	102.66	.93
TOTAL DIRECT COST	8.84¢	6,425.95	58.35
Salesmen & Supervisor Sal. & Comm.		2,413.36	21.91
Salesmen and Supervisor Expenses		64.54	.58
TOTAL DIRECT SALES COST		2,477.90	22.50
TOTAL DIVISION OVERHEAD		1,085.39	9.85
TOTAL EXPENSE		9,989.24	90.71
NET PROFIT		1,023.17	9.29

curb, or exposed fill-pipes or vents to separate the suspects from the prospects for insulation. That means canvassing."

Selling insulation also requires a different story. It is a heat-saving story, rather than a heat-generating story, and though it covers generally the claims of comfort and fuel economy used by oil-burner salesmen, it must be told from a different angle—told, that is, by an insulation salesman, rather than an oil-burner salesman. That requires a change in the entire thinking habits of the average burner man.

When Automatic Oil Heating Company started to handle Eagle-Pitcher home insulation, the manufacturer conducted a school for five days to get the salesmen started right. Aside from being able to tell a convincing story on the value of insulation, the salesman also must be able to give the prospect an estimate on the amount and cost of the work to be done. These estimates are based on a certain price per square foot of area to be covered, but the cost of the labor and materials to cover some areas is considerably greater than for others.

The simplest and easiest type of work is blowing into open attics. Here the men can work easily between the open joists, and can see how much material is being used, and how it is distributed. When a floor has been laid in the attic this complicates the work, and requires more time and material. Instead of being able to lay four inches of mineral wool between the joists, it may be necessary to fill the entire six or eight inches, though the extra material may add little or nothing to the insulating value of the job, or save no extra fuel. Knee walls, slopes, drop ceilings, and other characteristics of construction will vary the amount of labor and material necessary to do the job, and therefore will vary the price per square foot of work. A competent insulation salesman can figure these jobs and bring back a signed contract on which the dealer can make a profit.

Neat Truck *and uniformed crew take over the job.*

"That profit also will depend somewhat on the kind of men you have on your trucks," Mr. Moore adds. "When we started out we had eleven healthy fellows who were willing to work, but only one of them had any experience doing insulating work. We have had to pay for the training the others got on the job. It hasn't actually cost us money, but it seriously reduced our profits at a time when we could have used the extra money that experience cost.

"Now that we have learned to run an insulation business, we are in it to stay," Mr. Moore continues. "Insulation is a logical companion to efficient oilheating, which we shall always consider our principal business. There is an almost unlimited market in every metropolitan area covering only the existing homes, and when new building starts again it will add to the market possibilities. If you sell the man a burner or unit for his new home, why not do his insulating for him?

"There is profit in a well-managed insulating business," Mr. Moore concludes. "It may not be as much profit as the manufacturer tells you when you contract to handle his material. He is talking about an operation such as yours will *not* be for a long time to come, but from what we have seen since we learned the rudiments of the business, we like it, and are going to continue."

One very good reason why the company is going to stay in the insulating business is shown by the figure at the bottom of the accompanying table. This table represents the operation of only two trucks of the Insulating Division for April this year, and is not necessarily typical of the Division's present operations, since as Mr. Moore points out, the company had not then completed its education in the business. Further, April is not the best month for insulation sales, though the sales curve is much more even than that of the oilheating business. Insulation also is useful in keeping out summer heat, and a solid sales campaign can be built around this appeal for spring and summer business.

Greater experience on the part of mechanics makes for more speed in applying insulation, which means more jobs per month, and a consequent reduction in many of the costs. For this reason there will be variations between the earnings of the different trucks, depending on the skill of the crews, and the total amount of time that each truck can be kept working in any given month. Some manufacturers of insulating materials claim that each applicator truck should net $1,000 a month. It is doubtful if any new and inexperienced insulation dealer can come close to this figure at the start. When his education is complete, he may hit it.

Yes, there is money in selling and applying insulation. There is money, that is, for those who are willing to learn the business. There is no apparent way to short-cut that educational period.

Two Trucks *work in the same neighborhood, indicating the door-to-door nature of insulation selling.*

Putting the heat on the axis

Up to the time the war started, there was nothing finer than the tailor-made York oil-burning units. Remember the complete boiler-burner unit pioneered by York? And the Flame-Former for controlling manually the size and shape of the flame, without having to change the cup or nozzle?

Right now, we're putting the heat on the Axis. We have added new personnel, new plant-space, and new equipment. We're turning out special burners for portable laundry-units used by the Army and Navy. We're producing warm-air heating-units for the heating of barracks, mess-rooms, and recreation-rooms at various military bases. Then there are special burner-units for Army bake-ovens, airplane engine-heaters, and many others. These and other varied products that call for fine precision-work on a mass-production basis are rolling off the line at Shipley, Inc., to help win the war on land, sea, and in the air.

After it is over, the war-intensified skills and experience of Shipley, Inc., will be applied to peace-time products. Our main business will once more be the building of oil-burning units for home and industrial use, fitting the unit to the job through analysis of the needs, and engineering to those needs. York Heat will not just pick up where it left off . . . it will be 'way ahead of that . . . for it will have the added advantages of a thousand things learned in production for war, plus designs even now in work.

YORK HEAT

THOMAS SHIPLEY, INC., and its subsidiary, YORK OIL BURNER CO., YORK, PA.

Packaged oil heat

WPB L-74, as Amended, Restricts Burner Purchases

PART 1161, (Oilburners) of WPB Order L-74 has been amended, effective June 28, to place full control of all burner purchases in the Plumbing & Heating Div. of WPB. The actual amendment simply nails down the distribution of existing burner stocks; it does not go into the numerous questions of policy on what to do with the burners, once corralled—questions discussed at length during the period of preparing the amendment.

Purchases by Government agencies, including the Armed Forces, have been fairly high, often without serious regard for what might be available in present stocks. Now all such agencies must first ask the Plumbing & Heating Division about available stocks before they can place orders to have burners manufactured.

Present stocks of about 55,000 domestic burners and units are high enough to work financial hardship on some of the companies holding them, as well as unnecessarily freezing the critical materials in them, so WPB feels that substantially all of these should be used before any more are built.

Stock Listing Essential

Manufacturers and dealers are asked to list with the Plumbing & Heating Div. all burner and unit stocks, on a form to be provided for the purpose, and they will not be given permission to sell any stocks not so listed and the individual units identified.

In the discussions preceding the release of the amendment it was the concensus that some existing stocks should be used to replace old and particularly wasteful burners now operating.

The present plan is to appoint an oilburner industry advisory council of ten members to work with the division in determining policies as to who may buy burners from listed stocks. The ten committee members have been tentatively chosen, subject to top WPB approval.

Application for authority to place an order for oilburners must be made to the Plumbing & Heating Div. on Form WPB-2727. It would be well for manufacturers and dealers to have a few of these on hand. Get them from Washington, or local WPB offices may have them.

Because the new amendment would conflict with provisions of L-79, the latter has been amended to remove the restriction on delivery of oilburners to ultimate consumers except on priority ratings of A-10 or higher. They may now be delivered on WPB-2727 approval.

Lack of space prevents publishing the full text of the new amendment to L-74, but a copy can be had by writing WPB. A few highspots are:

"Class A" burners are those that use No. 5 or heavier oils, as well as any type made for shipboard use or for heat processing. "Class B" burners are for No. 1 to 4 oils, except vaporizing burners. "Class C" are vaporizing burners.

File Stock Lists

On the next two pages is the WPB form for filing a list of your burner and unit stocks. Tear this out, fill in and mail, by July 22, to Chas. Howard, Plumbing & Heating Division, War Production Board, Washington, D. C.

Remember, your burners cannot be sold unless they have been listed with WPB.

Any burners authorized by an L-74 appeal before the effective date of the new amendment (June 28, 1943) may be delivered. In the case of an emergency replacement, any oilburner may be shipped and installed as a rental burner for a period not exceeding 30 days, providing approval for such rental is secured from a WPB field office.

Order 13 Replaces L-56; Restricts 14 New States

PAW has issued Distribution Order No. 13 to replace WPB's L-56 restricting the delivery of oil to new burner installations, and has extended the prohibitions to the rest of the country. The only relaxation of the fueloil delivery regulations under the new order is to permit deliveries to space heaters recently purchased under OPA's Ration Order No. 9.

Fourteen new states and that part of Florida west of the Apalachicola River, comprising the balance of the country not previously under L-56, has been refused oil for new oilburning equipment after July 22. The order also denies oil for weed control anywhere in the United States.

The states added to the restrictions on fueloil delivery are Alabama, Mississippi, Louisiana, Arkansas, Western Florida, Texas, New Mexico, Idaho, Montana, Wyoming, Utah, Colorado, Arizona, Nevada, and California.

Commenting on the extension of restrictions under Order 13, Administrator Ickes said:

"I think the people in the states that have been added to the territory affected by the new regulation will be interested in knowing why it is necessary to impose these restrictions.

"By refusing permission, except under very special conditions, to deliver fuel oil to consumers who are now getting along with coal or other fuel, or to new consumers who can use coal instead of oil, or for such lesser uses as weed control, we aid in stretching our available supply of fueloil to meet essential war requirements.

"Our seven ocean Navy that is rapidly coming into existence must have fueloil to propel its ships. We are building the greatest number and tonnage of cargo ships in one year that the world has ever seen. Almost every one of these ships uses fueloil. Many of our greatest munitions plants cannot burn anything else but fueloil for power. Many parts of our great railroad systems, groaning under the greatest tonnage of freight in their history, plus huge movements of soldiers, have thousands of miles of track in areas where fueloil is the only source of power.

"All these uses, plus many others that are equally vital to direct war purposes, add up to an enormous demand for fuel oil. These demands must be met."

FORM WPB-2854
(6-26-43)

UNITED STATES OF AMERICA
WAR PRODUCTION BOARD

INVENTORY OF CLASS "B" OIL BURNERS AS OF JUNE 28, 1943

BUREAU OF THE BUDGET NO. 12-43510
APPROVAL EXPIRES DECEMBER 1, 1943

NAME OF FIRM

FIRM ADDRESS *(Street, City, State)*

CHECK ONE: ☐ MANUFACTURER ☐ DISTRIBUTOR ☐ RETAILER

TO: War Production Board, Washington, D. C.
ATTN: *Plumbing and Heating Division, Ref: L-74*

MARKETING AREA WHERE STOCK IS HELD *(If more than one city, describe briefly marketing area covered)*

INSTRUCTIONS - *Two (2) copies* of this form must be filed on or before *July 22, 1943* by each person or firm who on *June 28, 1943* held in stock any Class "B" Oil Burner (as defined in Limitation Order L-74 amended) for sale. A separate report is required for stocks in each of your marketing areas.

SECTION I - ASSEMBLED CLASS "B" OIL BURNERS

(INCLUDE AS PART OF YOUR INVENTORY, OIL BURNERS WHICH YOU HAVE EITHER SOLD TO, OR ON WHICH YOU HAVE RECEIVED LOANS FROM RECONSTRUCTION FINANCE CORPORATION AND DEFENSE SUPPLIES CORPORATION.) MY STOCK OF ASSEMBLED CLASS "B" OIL BURNERS ON JUNE 28, 1943 WAS AS FOLLOWS:

NO. OF ASSEMBLED UNITS	MANUFACTURER'S NAME	MANUFACTURER'S MODEL NO.	MOUNTING (Check One)		CAPACITY RANGE MIN. - MAX. G.P.H.	LENGTH OF BLAST TUBE (In.)	MOTOR CHARACTERISTICS (Check one)		H.P.	VOLTAGE	CYCLE	PHASE
			FLOOR	FLANGED			A.C.	D.C.				

SECTION II - UNASSEMBLED PRINCIPAL PARTS

MY STOCK OF UNASSEMBLED PRINCIPAL PARTS OF CLASS "B" OIL BURNERS ON JUNE 28, 1943 WAS AS FOLLOWS:

A. IGNITION TRANSFORMERS

NO. OF UNITS	MAKE	MODEL	VOLTAGE	FREQUENCY

B. FUEL PUMPS (Units)

NO. OF UNITS	MAKE	MODEL	STAGE	SIZE *(G.P.H.)*

FORM WPB-2854 (6-26-43)

C. MOTORS

NO. OF UNITS	MOTOR CHARACTERISTICS					
	(Check One)		H.P.	VOLTAGE	CYCLE	PHASE
	A.C.	D.C.				

SECTION III - EXCESS STOCK OF PARTS

LIST ANY EXCESS STOCK OF COMPONENT PARTS *(including those shown in Section II)* ***WHICH YOU WISH TO DISPOSE OF***, THAT MIGHT BE USED BY OTHER MANUFACTURERS IN THE ASSEMBLY OF CLASS "B" OIL BURNERS.

NO. OF UNITS	PART NAME	NAME OF MANUFACTURER	DESCRIPTION OF PARTS

REMARKS

CERTIFICATION

THE UNDERSIGNED COMPANY, AND THE OFFICIAL EXECUTING THIS CERTIFICATION ON ITS BEHALF, HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS REPORT IS CORRECT AND COMPLETE TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

_____ BY _____

NAME OF COMPANY — SIGNATURE OF AUTHORIZED OFFICIAL

_____ _____

DATE — TITLE

SECTION 35(A) OF THE UNITED STATES CRIMINAL CODE, 18 U.S.C. SEC. 80, MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION

Many years devoted to the manufacture of precision equipment have given us the "know how" when it comes to making float valves.

"DL" Float Valves have long enjoyed a fine reputation among space heater, water heater, and furnace manufacturers, for their ruggedness of construction, simplicity of design, and because of the company behind them.

DETROIT LUBRICATOR COMPANY *General Offices:* **DETROIT, MICHIGAN**

Division of American Radiator and "Standard" Sanitary Corporation

Canadian Representatives—RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

"DL" Heating and Refrigeration Controls • Engine Safety Controls • Safety Float Valves and Oil Burner Accessories • Radiator Valves and Balancing Fittings • Arco-Detroit Air and Vent Valves • "Detroit" Expansion Valves and Refrigeration Accessories • Air Filters • Stationary and Locomotive Lubricators

Distribution Division of OHI Takes Final Form at Chicago

FINAL ORGANIZATION of distributor-dealer section of Oil-Heat Institute of America, which has been officially designated as the "Distribution Division," was completed at a two-day meeting at Chicago, June 17 and 18. Presidents, secretaries and delegates of local oilheating associations in the major markets of the country finished one of the most significant organization developments the industry has yet seen. Four official sessions and numerous committee and organization meetings were fully and promptly attended by serious delegates intent on business. The organization of the division, according to OHI officials, marks a probable turning point for the industry, since it brings together in a single. coordinated unit for the first time the oilheating industry's oil and equipment contacts with its customers across the country.

Opening the sessions as temporary chairman, C. E. Lewis, president of OHI, described the necessity for the meeting and the need for a strong distributor-dealer organization. He outlined the work of the last year that had culminated in the meeting, and asked for cooperative thinking and planning by all retailers to help solve the industry's many problems.

"The old mottoes," said Mr. Lewis, "are still good. 'In union there's strength' and 'United we stand, divided we fall' are as true today as the first time you saw them in the copy book. The oil-heating industry will be greatly aided if we all remember those simple truths on which this Nation is founded."

After the nominating committees were formed to suggest officers and permanent committees for the Distribution Division, the meeting outlined a work program involving three classes of subjects: long range, regular or intermediate, and immediate problems. Long range problems would cover such subjects as post-war planning; publicity, promotion and public relations; taxation; uniform ordinances; standards; business management and legislative matters. Regular subjects might cover fueloil delivery costs and methods; joint facilities use and the Division membership. Such subjects as rationing, conversion policy, manpower and government regulations would come under the head of immediate problems.

Selection of officers and committee membership was effected with careful regard for territorial distribution and a careful balance between men interested in equipment and fueloil. Officers are:

Frank E. Spencer, national chairman, member of Burning Oil Distributors Association, Chicago.

Maurice N. Vining, West Coast vice-chairman, member of Oil Fuel Dealers Association, Seattle, Wash.

Gus. J. Burrell, East Coast vice-chairman, member of Westchester Oil Trades, Inc., Harrison, N. Y.

Ray F. Horan, secretary-treasurer, of Oil-Heat Institute of America, N. Y.

Accepting the national chairmanship of the Division after protesting his nomination, Frank Spencer pledged his full effort to help find solutions for the problems facing the industry, and predicted great benefit to the public and to the industry from the work of the Division, given the support that such an enterprise deserves. He urged every local association to emphasize to its membership the necessity for 100% adherence to the requirements of the rationing program, regardless of personal feeling regarding its merits or its effect.

Sitting with Mr. Spencer as members of the Board of Directors of Oil-Heat Institute representing the Distribution Division, will be Fred N. Beckwith, secretary of Oil Heat Institute of New England, and E. E. Hadlick, president of the Twin City Petroleum Club, Minneapolis.

Organization of the Distribution Division's activities was effected by the appointment of four basic committees, the duties of which were prescribed and membership named at the meetings. These committees are:

Executive Committee to deal with (a) policies and planning, (b) public relations, (c) publicity, (d) advertising and promotion, (e) membership, national and local, and (f) bulletin services. This committee is headed by J. E. Rowland (Philadelphia) chairman, and J. A. Hall (Seattle) vice-chairman, with Don J. Edwards (Boston), R. D. Rankin, Sr. (Kansas City), F. B. Caldwell (Chicago) and Clyde A. Marsh (Portland, Ore.)

Legislative Committee to handle (a) national and state taxation, (b) rationing, (c) conversion, (d) joint use of facilities, (e) priorities, (f) man power, (g) questions of transferring rationing to PAW, (h) directives for fuel handling equipment and repair parts, and (i) uniform ordinances. The committee of eleven is headed by Lester Scott (Washington) chairman, and E. E. Had

Unaffiliated Dealers

Dealers not affiliated with local associations cannot now be represented in the Distribution Division of Oil-Heat Institute of America, since no provision is made for individual memberships. OHI officials questioned on the subject suggest:

1. That dealers in cities or large territories where no association now exists form an association of oil dealers, equipment dealers or both, incorporate, and apply for affiliation with the Distribution Division, or

2. That dealers in small towns and rural areas not covered by existing associations apply for membership to the nearest affiliated association.

It is understood that many of the affiliated associations are considering a class of membership for dealers who are too far removed from its primary area to take an active part in local group affairs. It is pointed out that several of the affiliated associations cover wide areas, and plan to serve all dealers in their territories as active members.

Committee Chairmen *Lester Scott (left) Legislative; Ted Rowland, Executive; Howard Johnson, Business Management; and Harry Wentz, vice-chairman, Post-War Planning.*

THERE'S A GREAT DAY COMING!

— When Modern Electro-Mechanical Developments Come Home from War!

Electro-mechanical equipment, so ingenious that it seems to "see and even think", is today a commonplace tool of our fighting men. Tomorrow the uncanny talents of these war-developed instruments may well be utilized to give you Aladdin-like powers at present beyond your fondest dreams.

Right in your own home, alert and tireless appliances will anticipate and minister to your needs day and night. Push-buttons at your elbow will cause many irksome household tasks to be performed automatically. The busy woman's dearest wish will at last come true—the wish of having enough hours in every day to really accomplish all she has to do.

When wartime demands yield to peacetime desires, Delco Appliance will be among the first to bring you new electro-mechanical home equipment that promises unlimited sales and profit opportunities. Until that "great day" comes, *"Victory Is Our Business".*

Delco Appliances include Automatic Delco-Heat (oil-coal-gas), Delco Water Systems, Delco-Light Power Plants and Delco-Light Batteries.

DELCO APPLIANCE

ROCHESTER, N. Y.

DIVISION of GENERAL MOTORS

fuel oil & oil heat

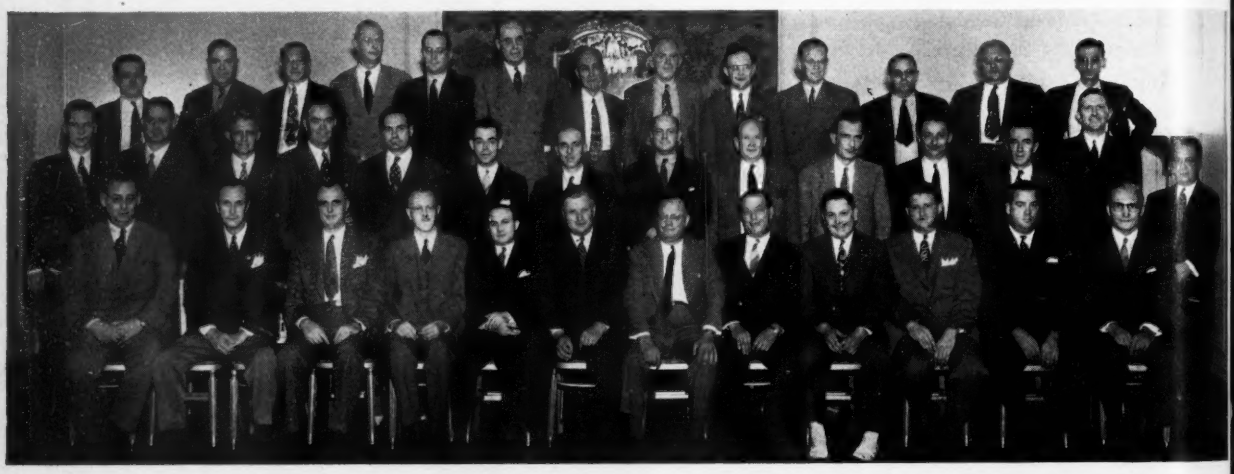
lick (Minneapolis) vice-chairman, with Albert Priesley (Sacramento, Calif.), Albert Baeranklau (Brooklyn), Lionel L. Jacobs (Philadelphia), B. J. Cahill (Seattle), Leo Browne (St. Louis), George Baldwin (Detroit), George Koertel (St. Louis), Walter J. Schroeder (Milwaukee), and John MacPhail (San Rafael, Calif.).

Business Management Committee to cover (a) costs and uniform accounting, (b) trade practices, (c) delivery costs, (d) uniform practices on small drop deliveries, and (e) tanks and tank sizes. This committee has six members headed by Howard Johnson (Detroit), chairman, and Harry Norquist (Portland, Ore.), vice chairman, with J. M. Steinhardt (Albany, N. Y.), M. F. McCarthy (Washington, D. C.), John P. Childe (Cincinnati), W. F. Schierholz (St. Louis), and Floyd Campbell (Portland, Ore.).

Post-War Planning Committee to study all phases of the post-war industry and to collaborate closely with the post-war committees of other divisions of OHI. The fourteen-man committee is headed by Lionel L. Jacobs (Philadelphia), chairman, and Harry Wentz (Lincoln, Neb.), vice chairman, with John Henry (Albany, N. Y.), Don J. Edwards (Boston), A. H. Coffin (Minneapolis), Emerson A. Spires (Chicago), M. A. Schneider (Cincinnati), George Fliehman St. Louis), Vern Grudem (Minneapolis), Harold Holmberg (Battle Creek), DeWitt Parsons (Battle Creek), Charles J. Osthoff (St. Louis), R. H. Petty (Chicago), C. A. Marsh (Portland), D. J. Cahill (Seattle).

An annual meeting of the Division is to be arranged to coincide as nearly as possible with the annual meeting date of OHI. It was decided that delegates to the Distribution Division meetings will be the regularly elected representatives of local organized and incorporated dealer, distributor or combined affiliated groups, covering any city, county, state or other geographical division. The impossibility of obtaining completely parallel organizations in every section was noted by Mr. Lewis in his opening remarks. Dues were established at $1 for each member of each local or association affiliated with the Distribution Division.

The meeting closed with a vote of thanks and appreciation to Mr. Lewis, Mr. Horan and the Oil-Heat Institute of America for the efforts that have brought about the organization of the Distribution Division.



Some of those in attendance *at the organization meeting of the Distribution Division.*

TOP ROW (*left to right*) *Harold M. Mottran, secretary, Wisconsin Oil Heat Association, Milwaukee; Walter J. Schroeder, president, Wisconsin Oil Heat Association, Milwaukee; J. M. Steinhardt, vice-president, Oil Heat Institute of Albany, N. Y.; F. M. Hallgren, Silent Glow, Chicago; A. G. Winkler,* FUELOIL & OIL HEAT, *New York; R. D. Rankin, Sr., Missouri Valley Oil Co., Kansas City; C. A. Marsh, president, Oregon Fuel Merchants Association, Portland; Lester Scott, director, Oil Heating Division, Merchants & Manufacturers Assn., Washington, D. C.; B. J. Cahill, manager, Oil Fuel Dealers Assn. of Seattle, Wash.; Harry A. Norquist, Campbell-Norquist & Co., Portland, Ore.; A. H. Coffin, Twin City Oil Burner Assn., Minneapolis, Minn.; John E. Henry, president, Oil Heat Institute of Albany, N. Y.; J. U. Farley, Chicago.*

CENTER ROW: *Floyd W. Campbell, Portland Oil Co., Portland, Ore.; John MacPhail, Western Oil & Burners Dist. Assn., San Rafael, Calif.; Harry Wentz Oil Heat Institute of Lincoln, Neb.; Leo A. Browne, secretary & treasurer, Oil Heat Institute of St. Louis; George E. Fliehman, Fuel Oil Company of St. Louis; Frank Kearney, secretary, Oil Heat Institute of Albany, N. Y.; E. A. Spires, Robert Barclay, Inc., Chicago; Hugh Courteol, Mercoid Corp., Chicago; W. A. Kemp, Sundstrand Machine Tool Co., Rockford, Ill.; John P. Childe, Oil Heat Institute of Greater Cincinnati; M. A. Schneider, Consolidated Eng. Sales Co., Cincinnati; F. B. Caldwell, Burning Oil Distributors Assn., Chicago; John A. Hall, president, Oil Fuel Dealers Assn., Seattle; L. B. Miller, Perfex Corp., Milwaukee.*

BOTTOM ROW: *J. E. Rowland, Oil Burner Div., Electrical League of Philadelphia; Ralph Hooke, Timken Silent Automatic, Chicago; Jack McDonnell, McDonnell & Miller, Chicago; Fred N. Beckwith, secretary, Oil Heat Institute of New England, Boston; Ray F. Horan, Oil-Heat Institute, secretary of the Dist. Div.; C. E. Lewis, president, Oil Heat Institute of America, New York; Frank E. Spencer, president, Burning Oil Distributors Assn., Chicago, and chairman of the Dist. Div.; Gus J. Burrell, president, Westchester Oil Trades Assn., Harrison, N. Y.; Howard Johnson, president, Michigan Oil Heat Assn., Detroit; Al Cytacki, Enterprise Heat & Power Co., Detroit; Ben Boalt, Perfex Corp., Milwaukee; Stanley Perry, Oil Devices, Inc., Chicago.*

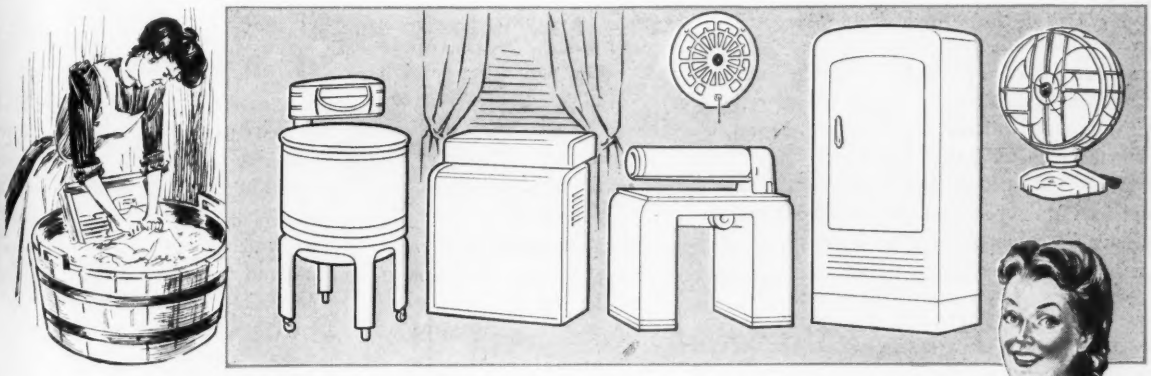
This Sewing Machine Motor Started Something!

An historic event—at the turn of the century—was the development of an Emerson-Electric Motor for attachment to the foot-power sewing machine, then in use.

This simple motor application marked the beginning of an era in which an entire industry was founded, bringing a multitude of labor-saving, motor-driven appliances and comfort conveniences for the home.

Throughout this long period, Emerson-Electric Motors have played a major role in powering these appliances. They have lifted the yoke of household drudgery and created the opportunity for American Womanhood to achieve a fuller life.

THE ELECTRIC MOTOR ENTERS THE HOME!
Sewing Machine reproduced from Emerson-Electric advertising of 1899



Types of Home Appliances Powered by Emerson-Electric Motors

When war came, the entire resources of Emerson-Electric's 53 years' experience were quickly converted and tremendously expanded for manufacturing vital implements of war—power-operated revolving gun turrets, shell parts, and many new types of electric motors for aircraft.

Out of the urgencies of war will come entirely new conceptions of electric motor design, construction and efficiency. "After Victory", manufacturers of the new and improved motor-driven appliances and equipment will confidently power their products with these motors.

"Until the war, I never fully appreciated the importance of the electric motors on my home appliances."

THE EMERSON ELECTRIC MANUFACTURING COMPANY
SAINT LOUIS • *Branches:* New York • Detroit • Chicago • Los Angeles • Davenport

In recognition of their "patriotism and great work", Emerson-Electric workers were presented with the Army-Navy "E" Award.

311

EMERSON ELECTRIC

MOTORS • FANS • APPLIANCES • A. C. ARC WELDERS

fueloil & oil heat

OPA Explains Ration Plan at 17 Industry Meetings

RATIONING DIVISION officials from Washington explained the provisions of the new fueloil rationing program, as well as the underlying considerations that brought the various changes, to large groups of oilheating and fueloil men in 17 Eastern and Midwestern cities during the period June 14-23.

Attendance at the New York meeting was 700, and in other cities from 300 to 500, so it's safe to say that there is very little that the industry as a whole doesn't know about the program by now, General reactions from men talked to after the meetings were distinctly favorable, with the expressed belief that the Division had gone a long way to relieve industry difficulties of last season.

During June most local boards got out the application blanks for renewals on central heating. They were coming back with creditable promptness and actual coupon issuance has started. On space heaters and range burners, however, progress is rather slow because boards had to wait for the new calculation charts and a questionnaire that is going to such users to determine just what are their facilities. As explained in the June issue, new yardsticks have been worked out for range burners, space heaters and portables, so the boards have considerable work to do on these, which will probably last through July.

The most important new rationing decisions in June had to do with detail of ration banking. All dealers who sold 250,000 or more gallons of fueloil in the period from June 1, 1942 to May 31, 1943, must use ration banking. If they now have a cash checking account they shall use that bank for ration banking; if they have no cash account in a bank, they may use any bank in the community for the new purpose. All told, some 15,000 banks have agreed to cooperate in the program. The Government pays the banks for their work.

The banks will supply all necessary forms without charge, including checks and deposit slips. The banks will not accept for deposit either delivery receipts or Period 5 coupons from the past season. These are to be exchanged at boards for bankable paper or passed upstream to suppliers, as in the past.

Dealers having more than one establishment operating in an area, or more than one corporate set-up in the same vicinity, shall carry only one ration banking account for the group.

Large consumers who use ration banking are also to have only one account, even though they have a variety of rations for different purposes. In the event that a consumer is large in one category, and thus gets a ration banking deposit certificate, while he is a small user for some other purpose, and gets coupons, he may not deposit the coupons in his bank account, but must dispose of them through his dealer. In other words, banks are not required to accept coupons from consumers.

If a consumer gives a dealer a "rubber" check, the dealer will not suffer. He can use it as valid ration paper, but he shall report to the local board the overdraft and Government enforcement agencies will take it up with the violator, or the bank will report the incident for investigation.

There was one additional amendment to Ration Order 11 in June, *Amendment No. 66*. It provides that if a person entitled to buy a new oil stove, under stove rationing, buys instead an unrationed second-hand stove he is still eligible for a fueloil ration. This clears up a point on "Additional Facilities."

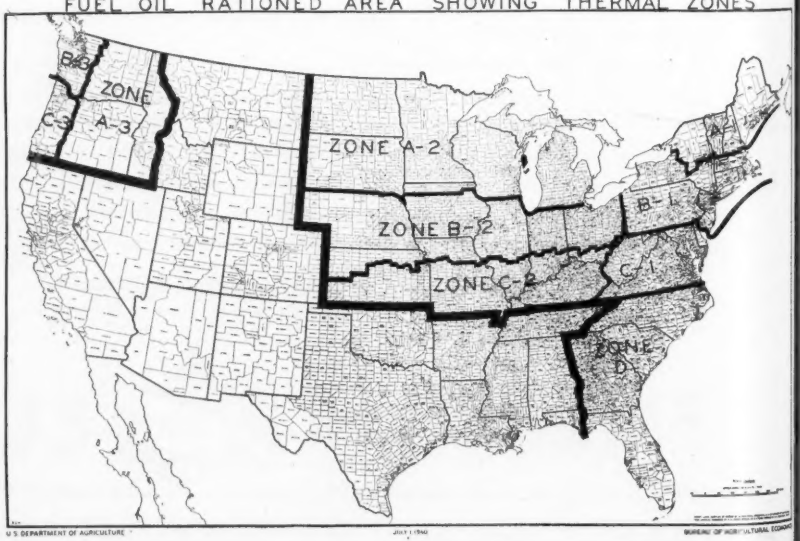
The schedule of coupon validity dates shown in the May issue has been slightly revised in some Zones, so the table is again shown in final form in the chart on the page following. The chart is from "Fuel Oil Industry Letter No. 11." The most important change is the telescoping of Periods 4 and 5 in Southeastern States, the same as in the Midwest. The new Zone map is also reproduced in final form.

OPA's enforcement section has issued suspension orders against two fueloil distributors and a grocer in the Newark area. Solar Fuel Oil Co., of Passaic, was suspended from selling oil for thirty days, effective September 1, on the charge of selling 500,000 gallons to consumers without collecting coupons. Economy Service, Inc., Newark, was given a twenty day suspension for selling 3,500 gallons without getting coupons. Philip Blau, Newark grocer, got a seven day suspension for collecting coupons in excess of the amount of oil sold.

◈

THE UNITED STATES REGISTER CO., Battle Creek, Mich., manufacturer of warm air registers, has added surgical operation benefits to its group program which already included accidental death and dismemberment insurance, and hospital expense and accident benefits. The hospital expense benefits have been increased under the new arrangement.

FUEL OIL RATIONED AREA SHOWING THERMAL ZONES



No. 3 in a series of tributes to America's War Industries

What's more—THEY CAN DISH IT OUT!

A Jap naval squadron is finally brought to bay. Like a trapped animal, it fights back ferociously . . . sends a storm of shell-fire thundering through the night. Many miss, some hit . . . and hurt. But the American warships shrug off the blows . . . hurl back five for everyone they take. Another big slice is blasted out of the Nipponese Navy and securely tucked away—in Davy Jones' locker.

Our fighting ships are champions born of America's industrial genius. Broad-shouldered battleships, compact cruisers, lithe destroyers . . . they're the best designed, best constructed, best equipped sea battlers afloat.

As the brains and brawn of American industry launch ships day in and day out, our seven-ocean navy becomes a fighting reality years ahead of schedule. And the smashing of every bottle of champagne is a toast to those enemy ships that still infest the seas. "Bottoms up!"

IN SHIPS OF ALL TYPES

TODD BURNERS

ARE WORKING FOR VICTORY

In hundreds of ships, merchant and fighting, and in war plants of all types . . . wherever trouble-free, dependable combustion is a necessity . . . Todd Burners are delivering unsurpassed performance in the production of heat and power.

TODD SHIPYARDS CORPORATION

TODD COMBUSTION DIVISION

601 West 26th Street, New York City

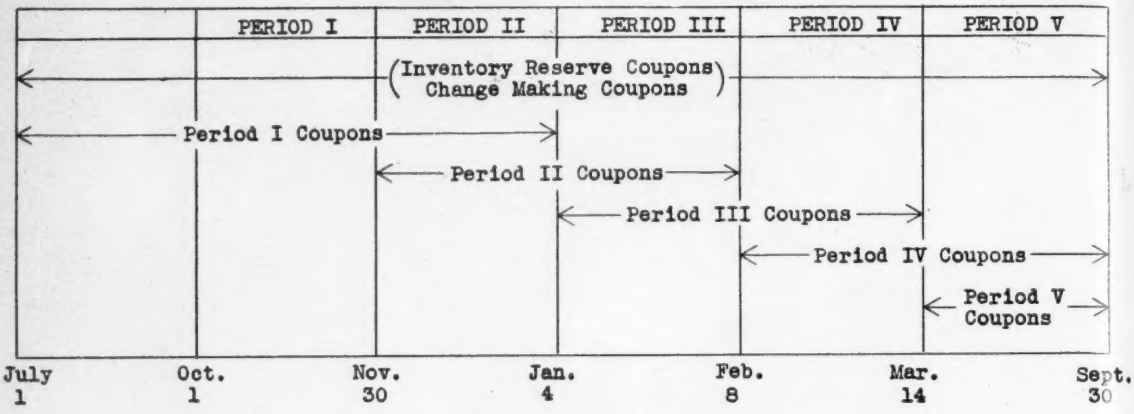
NEW YORK · MOBILE · NEW ORLEANS · GALVESTON
SEATTLE · BUENOS AIRES · LONDON

TODD BURNERS ★ ★ ON THE FIRING LINE OF AMERICA'S WAR PRODUCTION FRONT

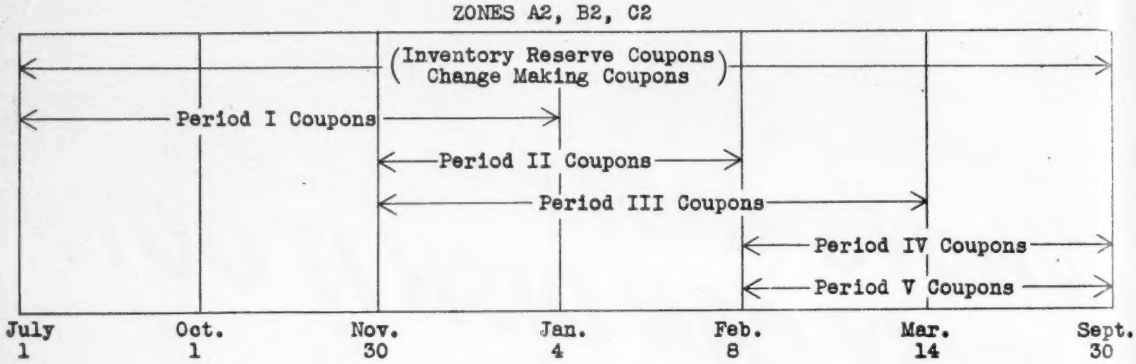
fueloil & oil heat

COUPON VALIDITY DATES FOR CONSUMERS
(1943-44)

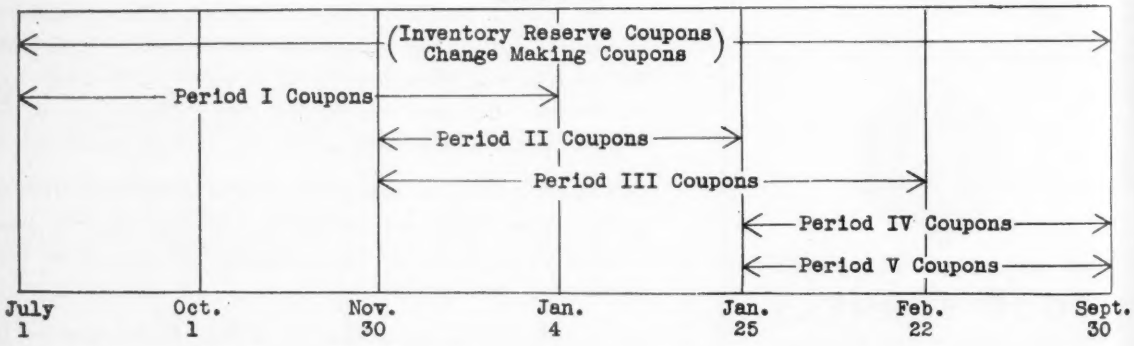
ZONES A1, B1, C1, A3, B3, C3



ZONES A2, B2, C2



ZONE D 1



Coupon Validity Dates for the Fuel Oil Industry and Ration Banks

Period	Zones A1, A3 B1, B3 C1, C3		Zones A2 B2 C2		Zone D1	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
I	July 1	Feb. 2	July 1	Feb. 2	July 1	Feb. 2
II	Nov. 30	Mar. 8	Nov. 30	Mar. 8	Nov. 30	Mar. 8
III	Jan. 4	Apr. 13	Nov. 30	Apr. 13	Nov. 30	Apr. 13
IV	Feb. 8	Oct. 30	Feb. 8	Oct. 30	Jan. 25	Oct. 30
V	Mar. 14	Oct. 30	Feb. 8	Oct. 30	Jan. 25	Oct. 30

AN IMPORTANT REMINDER

UNTIL 194V

Although Brodie Meters have always been ruggedly built first—to last, they embody critical materials which are obtained only with the highest priorities. Therefore, to maintain their greatest efficiency and avoid costly time and stock losses, give them the attention they deserve yet seldom require. Tag them with the reminder that "today's *FIRST* task is to make things *LAST*" until this war is won. Your best protection is regular inspection—make every gallon count.

BRODIE METERS

PETROLEUM METERING EXCLUSIVELY

SINCE 1927

RALPH N. BRODIE CO., Inc.
978 61ST ST., OAKLAND 8, CALIF., U.S.A.
CABLE ADDRESS: "BRODICO"

Division Offices: CHRYSLER BLDG., NEW YORK CITY
59 E. VAN BUREN, CHICAGO • 302 SOUTH PEARL STREET, DALLAS, TEXAS

REPRESENTATIVES AND STOCKS IN ALL PRINCIPAL CITIES

fuelfoil & oil heat

Olsen Buys Henry Furnace Medina Plant and Equipment

TITLE TO THE COMPLETE 10-acre plant of Henry Furnace and Foundry Company at Medina, Ohio, with all machinery, equipment, inventory and rights to the Moncrief furnace have been purchased by the C. A. Olsen Mfg. Co., Elyria, Ohio, furnace manufacturer. Assets of the Henry company outside Medina were not included in the transaction.

There has been no shut-down or stopping of production, according to C. A. Olsen, while negotiations were in progress. Shipments are being made on the same schedule in effect in recent weeks. Plans for an early increase in production already have been formulated, as there is no WPB limitation this year on the number of furnaces which Moncrief can produce.

H. F. Bradway, for many years in charge of manufacturing under the former ownership, will continue in the same capacity in the new Henry Furnace Company.

General offices of the new company will be located at the Medina manufacturing

Ten-Acre *plant of Henry Furnace, recently bought by Olsen.*

plant. Purchasing, sales, accounting and other activities will be carried on at the place of manufacture.

Warm Air Furnace manufacturers for more than 40 years, Henry Furnace and Foundry Company and its successor are producers under the trade name Moncrief of gravity warm air furnace and air conditioning units for all fuels, coal, hand or stoker-fired, gas and oil. Furnace pipe, elbows, ducts and fittings are also products of Moncrief.

The new owners are veterans of the warm air heating industry. Mr. Olsen, who is President of The C. A. Olsen Manufacturing Company of Elyria, Ohio, manufacturers of steel furnaces and air conditioners, for many years was president of The Fox Furnace Co., Elyria, Ohio, a former subsidiary of American Radiator & Standard Sanitary Corporation. Mr. Olsen's industry activities include two terms as President of the National Warm Air Heating and Air Conditioning Association.

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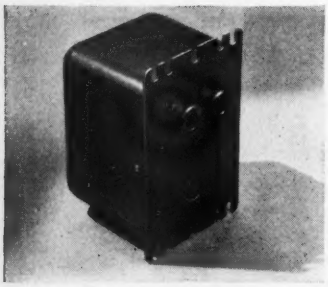
Minneapolis-Honeywell Surplus Clearing House

IN THE APRIL ISSUE of "Sales Management" magazine is a feature story on a procedure set up by Minneapolis-Honeywell Regulator Co. to assist dealers all over the country to obtain badly needed heating controls from other dealers who had surplus stocks.

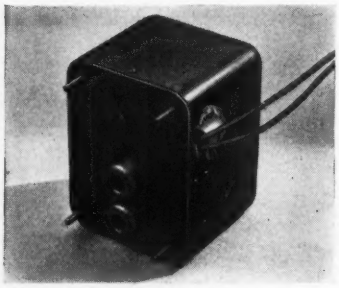
The plan was originated by A. H. Lockrae, home office sales manager, and is explained in the "Sales Management" story thus:

"Each wholesaler and manufacturer who used Minneapolis-Honeywell's products was asked to send in a complete list of instruments which he wanted to sell and which were not frozen by priorities or other selling restrictions. Asked selling price f.o.b. wholesaler's city was the only other information required. Mr. Lockrae assembled this information in mimeo-

G-E IGNITION TRANSFORMERS

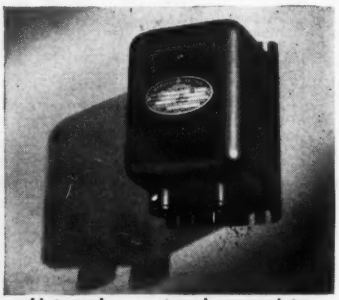


Universal mounting, h-v detachable plug terminals in bottom; l-v knockout in bottom



Studs for concealed mounting, h-v detachable plug terminals in bottom; l-v BX connector

Universal mounting, h-v stud terminals in end; l-v knockout in bottom



Universal mounting, h-v conduit, detachable plug terminals in end; l-v knockout in top

Provide an Unfailing High-voltage Arc for Oil Burners

Designed to give positive ignition under such extreme conditions as:

- Line voltage as low as 70 per cent of normal
- Heavy oil at freezing temperatures (as low as −10 C)
- Cold spark point
- Oil film on spark point

And they are exceptionally effective in reducing radio interference

See your nearest G-E office for replacement parts. They will help you to service your customers and to keep their oil burners at top operating efficiency. *General Electric Company, Schenectady, N. Y.*

GENERAL ELECTRIC

403-49-5205

Let the Eagle Scream

Sure, let 'im scream — why not? We consider a good healthy scream every now and then very much in order these days.

But you'll pardon us if we don't have time to stop and listen, for we at Penn Boiler are much too busy giving the Old Bird something to scream about to stop for anything!

We're working hard — we're working on two fronts, and naturally our attitude isn't purely altruistic — for while we're making materials of war we're also making plans for peace; a peace we will have helped to bring about.

And while our factory, like the Mills of the Gods, grinds and grinds, we're simply bu'sting to tell you what's been going on in our laboratories.

Comes V-day —

YOU CAN EXPECT GREAT THINGS FROM PENN BOILER!

PENN BOILER & BURNER MFG. CORP.

E. C. STAUFFER, PRESIDENT

LANCASTER, PENNA.

fueloil / oil heat

graphed form and distributed it to the wholesalers, but he left out the name and address of the seller for the very obvious reason that the seller would be caught in a blizzard of replies and could not handle them.

"Wholesalers snatched the reports like wildfire—sent in wires, phone calls, letters to Mr. Lockrae by the dozens asking for the instruments. Buyers' orders were handled in the routine of receipt, and a letter to the bidder giving the name and address of the seller was forwarded until it was indicated that the supply was exhausted. Transactions from there on were between buyer and seller.

"All Minneapolis-Honeywell wanted to do, and apparently what it did with startling success, was to get buyers and sellers together. The buyers sent their requests to Mr. Lockrae who in turn put them in touch with the seller.

"In many instances the plan enabled manufacturers and wholesalers to get rid of older models which actually had been on inventory for 8 or 10 years—but which were still usable. In other cases it provided an opportunity to get rid of surplus stock without loss to the owners. In all cases however, it helped customers to distribute vitally needed automatic controls to hard pressed buyers."

What About YOU on V-Day?

If you can spare a few minutes now and then from your war work, this is a good time to be considering where you are going in the Post-War Markets, Mr. Dealer!

Here at ELECTROL, during the brief moments we can get away from making vital war equipment, we are making plans.

Thousands of ELECTROLS are now serving the public. We have a 25 year record of success in making and selling burners, on which to draw for experience, and we are learning things every day about precision work which will result in more and better products on V-Day.

If you are interested in talking things over with an "old-timer", this would be a good time to do it. Perhaps we can plan together for our mutual benefit.

P.S.: Don't forget to buy WAR BONDS & STAMPS!

ELECTROL

25 Howe Ave.,

PASSAIC, N. J.

WPB Closes 23 Offices

TWENTY-THREE of WPB's 123 district offices were closed June 15, Wade T. Childress, Deputy Vice Chairman for Field Operations, announced.

Besides effecting a saving in money, the cut will result in the maximum utilization of WPB personnel. Business formerly carried on by the twenty-three offices will now be handled by other district offices in the states involved, and essential service to the communities will thus be maintained.

These are the twenty-three offices affected:

Lowell, Mass., Fall River, Mass., New Bedford, Mass., Camden, N. J., Chester, Pa., Lancaster, Pa., Norristown, Pa., York, Pa., Wilkes-Barre, Pa., Reading, Pa., Roanoke, Va., Williamsport, Pa., Chattanooga, Tenn., Greenville, S. C., Mobile, Ala., Miami, Fla., Johnstown, Pa., Wheeling, W. Va., Iron Mountain, Mich., Fort Smith, Ark., Shreveport, La., Fresno, Cal., Oakland, Cal.

Steel Heating Boiler Institute New Officers

HOMER ADDAMS, President of the Fitzgibbons Boiler Company, Oswego, N. Y., was elected President of the Steel Heating Boiler Institute, Inc. at its annual two days meeting held in Buffalo, N. Y., June 14-15. F. V. Hebard was elected Vice President. Mr. Hebard is President of the International Boiler Works of Philadelphia and Stroudsburg, Penna. W. J. Parker of New York, was elected secretary treasurer, and Montie Heminway of New York, executive secretary.

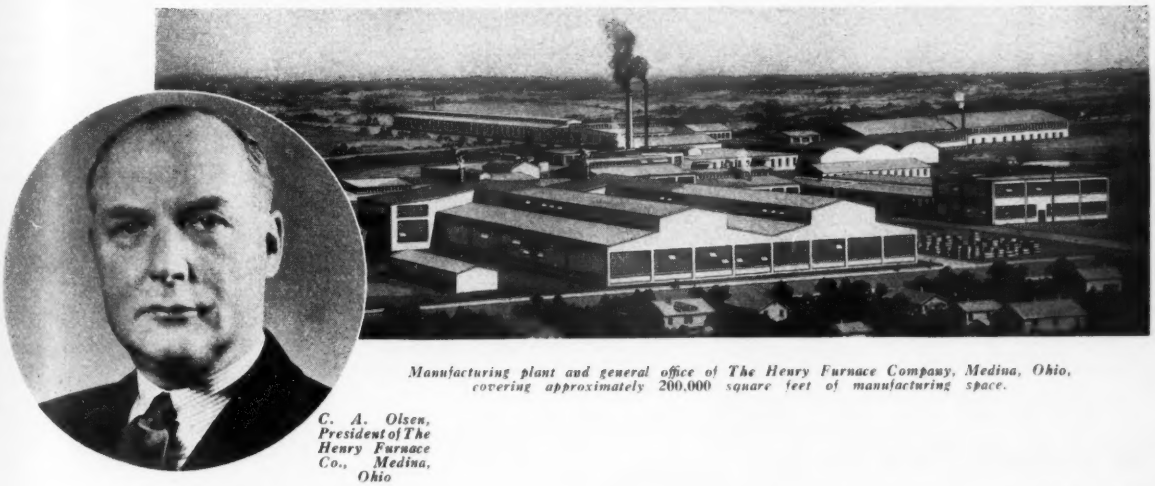
The newly elected board of directors includes, in addition to Messrs. Addams and Hebard, J. R. Collette, Pacific Steel Boiler Division; R. B. Dickson, Kewanee Boiler Works; A. E. Jennings, Titusville Iron Works; J. F. Johnston, Johnston Bros., Inc.; C. N. Tull, Spencer Heater Division; J. C. Trefts, Jr., Farrar & Trefts, Inc. and A. F. Weiss, Burnham Boiler Corporation.

Announcing

THE NEW

HENRY FURNACE CO.

MEDINA, OHIO



Manufacturing plant and general office of The Henry Furnace Company, Medina, Ohio, covering approximately 200,000 square feet of manufacturing space.

C. A. Olsen, President of The Henry Furnace Co., Medina, Ohio

ON May 27, 1943, The Henry Furnace Co., of Medina, Ohio, acquired the ownership of all the Medina, Ohio real estate, buildings, equipment and inventory, including trademarks and trade names, of The Henry Furnace & Foundry Co.

In acquiring the Moncrief Warm Air Furnace, Air Conditioning and Pipe and Fittings line, it is our intention to keep production on these products as close to 100% as circumstances will permit. Today, plans for an early increase in production have been formulated and production will be stepped up as rapidly as raw materials and additional manpower can be obtained and manufacturing efficiency can be improved.

We solicit the continued patronage of Moncrief Dealers and Jobbers. We desire to supply their heating equipment requirements, to the best of our ability.

General headquarters are located right at our manufacturing plant, from which administrative, sales, accounting, purchasing and other activities will be conducted. All communications should be addressed to Medina, Ohio.

It is our determination to continue the high Moncrief standard of excellence which has been maintained for more than 40 years.

Signed
C. A. OLSEN
President

WARM AIR FURNACES
FURNACE PIPE
AND FITTINGS

MONCRIEF

AIR CONDITIONING
SYSTEMS FOR
COAL . . GAS . . OIL

THE HENRY FURNACE CO. **MEDINA, OHIO**

fueloil & oil heat

For Your Local Newspaper

In recent months several requests have come from dealers for suitable material for their local newspapers to help combat the flood of scare publicity detrimental to oilheating. In the belief that other dealers could make good use of an occasional newspaper release, the editors will from time to time provide you with suitable stories.

Have your stenographer copy the story, inserting your name and company name at the points indicated, and submit it to your local newspaper editor. Don't be deterred by the thought that some other dealer in the town may be submitting the same story. It could happen, but it isn't probable. Even if more than one did offer the same comments, little harm would be done, since the major purpose is to reassure customers of all dealers. The first story follows:

OIL FOR HEATING is likely to be as plentiful in the post-war period as any of the other common fuels, according to (Your Name) of (Your Company), local oil heating man. There is every indication, he says, that we shall have petroleum for all our needs for the next 100 years.

"Temporary shortages, due to war-time transportation difficulties, should not be interpreted as a country-wide oil shortage," Mr. (Your name) points out. "There is more oil in sight in proven reserves today than at any time in the country's history, and we are adding to those reserves each year. War-time demands on the producing, refining and transport branches of the petroleum industry have created temporary problems that cannot be quickly solved, but when our tankers, men and materials no longer are needed for their present war jobs, oil will again be easily available."

Synthetic rubber, plastics, and other new uses for oil do not threaten the supply for heating, says Mr. (Your Name), since other raw materials are available at lower prices than the same chemicals would cost if produced from petroleum.

"We hear much loose talk about the synthetic rubber program using huge quantities of oil," Mr. (Your Name) says. "If we made the country's total annual rubber demand of 700,000 tons entirely of petroleum, it would require only 6/10 of 1 percent of our annual oil production. Synthetic rubber is made from alcohol. Under normal conditions, the more petroleum alcohol we produce, the more fuel oil will be available, but the total amount to supply our rubber needs is insignificant.

"There are predictions that we shall have plastic houses, and even plastic telephone poles after the war," Mr. (Your Name) continues, "but when petroleum is so cheap that it can be used in quantity for such purposes, there will be enough easily to take care of our heating demand. The convenience of oil heating, and the ease with which oil can be used, makes it valuable as a heating fuel; more valuable than for many other uses where substitute materials can easily be used."

Concerning present supplies of oil, Mr. (Your Name) points out that oil in the ground in tested fields totalled 20,082,793,000 barrels at the end of 1942, a

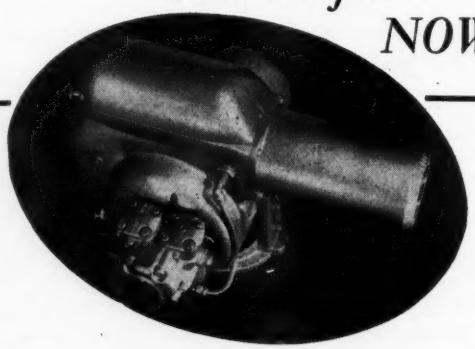
WARNING!

To be sure of having your nozzle stock complete at the start of the coming heating season—*Order Now!*

High priority war orders are taking most Monarch Nozzles and therefore quantity orders with A-10 ratings can seldom be shipped promptly. However, we try to ship *emergency* orders for one or two nozzles immediately.

MONARCH MFG. WORKS, INC.
E. WESTMORELAND AND SALMON STS. PHILADELPHIA, PA.

Plan for Peace... and Profits... NOW!



Tomorrow's profit-builder in oil burners will be HERCO . . . engineered for oil economy, efficiency, minimum servicing. It's not too early to plan peacetime selling. Check on Herco's present performance to get a line on future profits.

Right now, Herco is working 100% on war production. But *a limited number of burners are available to qualified buyers.*

HERCO OIL BURNER CORP., LANCASTER, PA.

All Herco Burners are listed as approved by Underwriters' Laboratories, Inc. for Commercial Standard CS75-39.

HERCO
The Oil-Thrifty
OIL BURNER

THE EXECUTIVE WHO STOPS TO THINK . . .

Knows that "10% for War Bonds isn't enough these days"

Workers' Living Costs going up . . . and Income and Victory Tax now deducted at source for thousands of workers . . .

Check! You're perfectly right . . . but all these burdens are more than balanced by *much higher* FAMILY INCOMES *for most of your workers!*

Millions of new workers have entered the picture. Millions of women who never worked before. Millions of others who never began to earn what they are getting today!

A 10% Pay-Roll Allotment for War Bonds from the wages of the family bread-winner is one thing—*a 10% Pay-Roll Allotment from each of several workers in the same family is quite another matter!* Why, in many such cases, it could well be jacked up to 30%—50% or even more of the family's *new* money!

That's why the Treasury Department now urges you to revise your War Bond *thinking*—and your War Bond *selling*—on the basis of *family* incomes. The current War Bond campaign is built around the family unit—and labor-management sales programs should be revised accordingly.

For details get in touch with your local War Savings Staff which will supply you with all necessary material for the proper presentation of the new plan.

Last year's bonds got us started—*this year's bonds are to win!* So let's all raise our sights, and get going. If we all pull together, we'll put it over with a bang!

This space is a contribution to America's all-out war effort by

FUELOIL & OIL HEAT

you've done your bit
. . . now do your best!

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

fueloil & oil heat

increase of slightly less than a half-billion barrels during the year. This continues a trend that has been fairly consistent in normal times when new discoveries and extensions of existing oil pools bring to light more oil than the country produces each year.

"If the time ever comes when oil underground shows signs of exhaustion, we have about 92 billion barrels than can be recovered from oil shale," says Mr. (Your Name, "and tremendous additional production from the treatment of coal. Oil from these processes will cost but little more than present well oil, if and when we see fit to produce it.

"There is oil now in sight for more than 100 years at our present rate of consumption," Mr. (Your Name) states. "It is hard for those who know the true situation to get excited about a post-war oil shortage, though there have been many recent statements on the subject by people who have an interest in creating an oil "shortage" in the minds of the public.

"Present problems in the production of some other fuels seem to indicate that oil users' fuel supplies may be fully as secure as their neighbors who don't burn oil," he concludes. "War-time conditions create many situations that inconvenience the civilian population, but there is no reason to believe these conditions are permanent."

◈

Simplified Practice for Cast Iron Radiators

SIMPLIFIED PRACTICE Recommendation R-174-43, Cast Iron Radiators, has been approved for promulgation, according to an announcement by the Division of Simplified Practice, National Bureau of Standards.

This recommendation consists of a simplified schedule of radiators commonly known to the industry as small-tube, and supersedes Recommendation R174-41, Large-Tube Cast-Iron Radiators, originally promulgated in 1940. This change has been made in view of the fact that in March 1942 the War Production Board issued Schedule VI to Limitation Order L-42, Plumbing and Heating Simplification, prohibiting the manufacture of large-tube radiators, as a means of conserving metal.

The revised recommendation lists number of tubes per section, catalog rating and dimensions for 10 sizes of radiator This figure, compared with 17 sizes heretofore manufactured, represents a reduction of 41 percent. Additional information included in the recommendation concerns testing, method of assembly, location of tappings and air vents, and other details. This recommendation will serve to supplement the schedule in the limitation order, which establishes the maximum weight in pounds per square foot of heating surface for these radiators.

Until printed copies are available mimeographed copies may be obtained without charge from the Division of Simplified Practice, National Bureau of Standards, Washington, D. C.

◈

Joseph L. Weiner has resigned as director of the Office of Civilian Supply in WPB.

Earle D. Parker, 63, vice-president and general manager of Barber-Colman Co., Rockford, Ill., died suddenly following a heart attack June 13.

OIL IS AMMUNITION
USE IT WISELY

PETRO
Reg U. S Pat Off

"OIL MISER" BURNERS

Engineering Co-operation and Services continue as always

Our greatly increased factory facilities are now completely on WAR PRODUCTION.

. . . But our Engineering Division is fully manned and we are rendering every possible service to the trade.

REPAIR PARTS (subject to Priorities Order) are and will be available.

PETROLEUM HEAT & POWER COMPANY
Makers of good oil burners since 1903
STAMFORD **CONNECTICUT**

Want Advance Industry Facts?

★

FUELOIL & OIL HEAT'S mid-month publication, "Merchandising News," brings you significant industry developments and Government regulations two to three weeks ahead of the monthly issue of the magazine.

It also frequently contains materials of a semi-confidential nature, not published in the magazine.

Subscribers to "Merchandising News" include most of the top-rank executives in oil-heating, key Government men and financial institutions.

The subscription price is $15.00 a year.

You need the earliest possible information in these fast-changing days.

FUELOIL & OILHEAT

232 Madison Avenue New York

THEY LOOK TO US *for* *Better Living*

What of these millions of Americans who look to us for better living? They are too young to fight . . . too young to man the machines of industry . . . too young to either condemn or praise our individual wartime roles.

Stakes are high in this global War! Our enemies lust for Power. And Power is neither territory nor raw materials. Power is people! Power is absolute life and death control over the minds and bodies and futures of those who now are free.

That's why this War demands unity of purpose, unity of action from the Fighting, Producing and Civilian fronts. That's why Oil-O-Matic skill, facilities and productive capacity now work for Victory—to speed that day when they will again build the products of better living. Because better living *begins* with Victory!

Take your first step toward tomorrow's better living *now*. Buy War Bonds! Because your *fighting dollars* of today will be your *better living* dollars of tomorrow.

This advertisement also appears in *Colliers, Better Homes & Gardens* and *American Home.*

ARMY E NAVY

THE BONDS YOU BUY TODAY ARE YOUR GUARANTEE OF A *Better Tomorrow!*

WILLIAMS OIL-O-MATIC HEATING

WILLIAMS OIL-O-MATIC HEATING CORPORATION

BLOOMINGTON, ILLINOIS

fuelоil & oil heat

Wartime Boiler Replacements

With NEW BOILER production held to a minimum to conserve critical materials, it is nonetheless necessary to be sure that enough are made to replace those that actually break down and cannot be repaired. Opinions on how many are necessary for this purpose differ within the industry. Past replacement records are a guide, but the question arises as to how many of these were necessary replacements and how many were promotional sales—usually promoted to switch the home-owner to another fuel. Not often would the replacement of a coal boiler with another coal boiler be a promotional sale, most were actual breakdown replacements. On the other hand, a large percentage of oil and gas boiler sales could be considered promotional, since they were switching fuels.

The table shows boiler sales by types for seven prewar years, and total boiler installations in new homes and for replacements.

Coal boiler replacements show wide annual variation. In 1935 and '36, the large depression backlog was responsible. Income was expanding, and old boilers had been patched to the limit in the preceding four years. In 1941 coal replacements again had a surge, with incomes good, and oil taking a set-back due to the first oil shortage scare during that summer.

Seven Years' Boiler Sales by Types

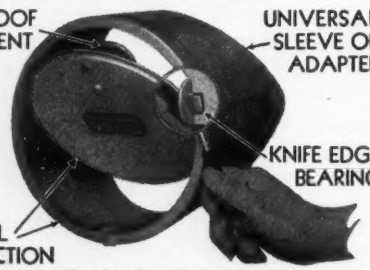
Year	Total Boiler Sales	Coal Boiler Sales	Oil Boiler Sales	Gas Boiler Sales	Total Installations In New Homes	Total Replacements
1935	174,520	127,766	43,491	3,263	82,900	91,620
1936	228,482	164,574	60,544	3,364	102,280	126,202
1937	186,276	107,688	73,783	4,805	102,930	83,346
1938	154,380	78,698	71,357	4,325	89,970	64,410
1939	170,577	80,568	82,927	7,082	99,620	70,957
1940	193,419	82,248	100,970	10,201	105,500	87,919
1941	203,742	85,118	104,349	14,275	110,210	93,532

New home and replacement sales, by type of boiler installed, were:

	IN NEW HOMES			REPLACEMENTS		
Year	Coal Boilers	Oil Boilers	Gas* Boilers	Coal Boilers	Oil Boilers	Gas* Boilers
1935	72,152	9,660	1,088	55,614	33,831	2,175
1936	83,259	17,890	1,131	81,315	42,654	2,233
1937	75,848	25,480	1,602	31,840	48,303	3,203
1938	64,928	23,600	1,442	13,770	47,757	2,883
1939	69,849	27,410	2,361	10,719	55,517	4,721
1940	65,090	37,010	3,400	17,158	63,960	6,801
1941	54,472	50,980	4,758	30,646	53,369	9,517

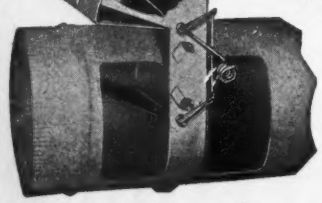
*On gas boilers, while the total produced is reliably reported by their manufacturers' association, the separation between new homes and replacements is not known, so has been estimated at 1/3 and 2/3.

Help Customers Lick Fuel Rationing! Conserve Heat Units



Stock No. 909 fits pipe sizes 7", 8", 9", 10".
Stock No. 912 fits pipe sizes 11", 12", 13".

Complete stock of sizes on both types for immediate shipment. Write today for our low prices.

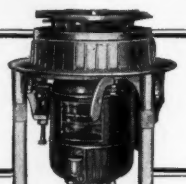


HEAT RETENTION means "fuel savings" with Cole Draft Governor

Cole-Sullivan Engineering Company

41 Rosegold Franklin Sq. N. Y. | 6627 N. Campbell Chicago | 1316 N. 3rd St. Minneapolis

THE TORIDHEET LIBERTY LINE



QUICK SHIPMENT FROM STOCK

We can make immediate shipments from stock of the following equipment.

Model B Wall-Flame Burners
Model C Wall-Flame Burners
Model S Pressure Burners
Model G Pressure Burners
Series OEO Air Conditioning Furnaces
Model 140 Water Heaters

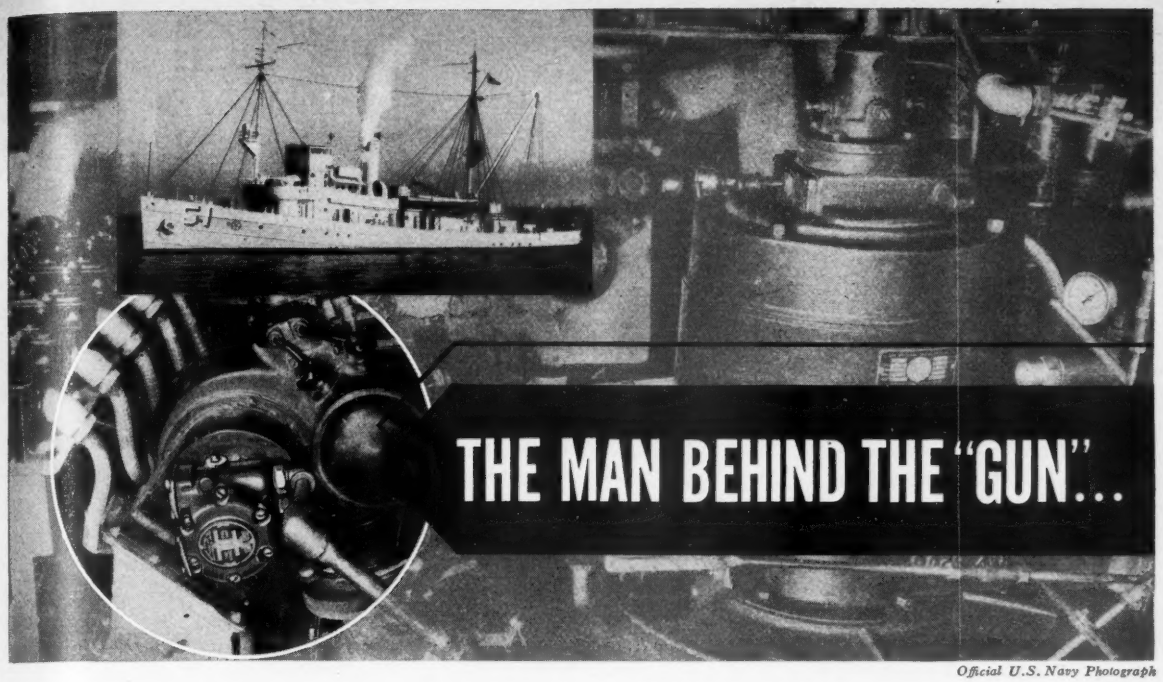
Also, prompt shipment can be made from warehouse stocks of oil-burner boilers.

You owe it to yourself and to your community to replace worn-out equipment with Toridheet—because Toridheet was created to *cut* oil consumption.

This is the time to tie up with Toridheet. Write today for complete information.

CLEVELAND STEEL PRODUCTS CORP.
TORIDHEET DIVISION CLEVELAND, OHIO

Oil Burners ★ Air Conditioning Units ★ Oil-Burner Boilers
Coal and Gas Furnaces ★ Water Heaters



Official U.S. Navy Photograph

Webster Electric Fuel Units are the "men" behind the Ray gun type Oil Burners that keep our U. S. Navy seaplane tenders on the job.

Wherever our far flung navy operates . . . in the Pacific . . . Atlantic . . . in all the seven seas, Webster Electric Fuel Units perform an important and exacting task. They control the flow of fuel that keeps our Navy moving and moving fast in the combat areas.

On sea and on land, Webster Electric Fuel Units are performing vital services in a war which more than any other depends on oil for its successful conclusion.

But while full out for war, Webster Electric does not lose sight of the requirements of important industrial installations at home and the service needs of home owners who use our products. From coast to coast service representatives are ever ready to supply vital parts and service information.

BUY WAR BONDS

WEBSTER ELECTRIC SERVICE STATIONS AND SALES REPRESENTATIVES

Ignition Transformers, Fuel Units, and Parts

California, Los Angeles	Garland-Affolter Engr. Corporation	124 W. 4th Street	Sales Representative
California, San Francisco	Garland-Affolter Engr. Corporation	Rialto Building	Sales Representative
Connecticut, West Hartford	Bell Pump Service Company	100 Park Road	Service Station
Illinois, Chicago	Braun Bros. Heating Supply Company	3146 W. Chicago Avenue	Service Station
Illinois, Winnetka	Braun Bros. Heating Supply Company	812 Oak Street	Service Station
Iowa, Des Moines	Delavan Engineering Company	414—12th Street	Sales Representative
Maryland, Baltimore	R. E. Michel Company	1011 Greenmount Avenue	Service Station
Massachusetts, Cambridge	Cronin Supply Company	60 Broadway	Service Station
Massachusetts, Malden	E. L. Kimball Company	25 Lynde Street	Service Station
Massachusetts, Waltham	Cronin Supply Company	157 High Street	Service Station
Massachusetts, Wollaston	W. S. Plummer	109 Lincoln Avenue	Service Station
Michigan, Detroit	Wm. G. Boales Company	6429 Hamilton Avenue	Service Station
Minnesota, St. Paul	Thermal Company, Inc.	2448 University Avenue	Service Station
Missouri, St. Louis	Brass & Copper Sales Company	2817 Laclede Avenue	Service Station
New Jersey, Elizabeth	Certified Fuel Unit Service Company	600 Spring Street	Service Station
New York, Albany	Certified Fuel Unit Service Company	1018 Central Avenue	Service Station
New York, Brooklyn	Eveready Specialties Company	1724 Flatbush Avenue	Service Station
New York, Brooklyn	The Capson Company	106 Rogers Avenue	Service Station
New York, Jamaica	Sid Harvey, Incorporated	138-76 Queen Boulevard	Service Station
New York, Valley Stream	Sid Harvey, Incorporated	104 E. Mineola Avenue	Service Station
Oregon, Portland	Garland-Affolter Engr. Corporation	1233 N. W. 12th Avenue	Sales Representative
Pennsylvania, Philadelphia	Certified Fuel Unit Service Company	3412-14 W. Allegheny Ave.	Service Station
Rhode Island, Providence	Providence Plumbing Supply Company	47 Pine Street	Service Station
Washington, Seattle	Garland-Affolter Engr. Corporation	532 First Avenue South	Sales Representative

Webster Electric "Type T" Fuel Unit used as control for Ray gun Type Oil Burner on U. S. Navy Seaplane Tenders.

WEBSTER ELECTRIC

"Where Quality is a Responsibility and Fair Dealing an Obligation"

fuel oil & oil heat

Post-War Committees Named

MEMBERSHIP OF FIVE of the seven working sub-committees of the Advisory and Post-War Planning Committee of Oil-Heat Institute of America have been named by W. A. Matheson, chairman of the over-all committee. Subcommittees on Engineering and on cooperation with the Committee on Economic Developments have not been named. It is felt that the Engineering Committee of OHI may be able to serve in a dual capacity, covering matters of engineering for the subcommittee. Since several of the representatives of the larger companies have working relationships with the national Committee on Economic Development, it is probable that relations with the national committee can be coordinated from the several contacts that will be made from time to time.

Subcommittee memberships that have been announced are:

1. Subcommittee on Oil Supply

W. A. Kemp, chairman, Sundstrand Machine Tool.

Fenton Fisher, Mercoid.

J. F. Corrigan, Petroleum Heat & Power.

2. Subcommittee to Work with Oil Refiners and Marketers

W. F. Brannan, chairman, Anchor Post Fence.

E. A. Halbleib, Delco.

W. F. Rockwell, Timken Silent Automatic.

Harold W. Sweatt, Minneapolis, Honeywell.

3. Subcommittee to Work with Boiler and Furnace Manufacturers

Gray B. Tuthill, chairman, Tuthill Pump.

Milton A. Powers, Timken Silent Automatic.

Earl Nesmith, Williams Oil-O-Matic.

4. Subcommittee on the Overall Post-war Market

John P. Rainbault, chairman, General Electric.

S. A. Loeb, Webster Electric.

R. M. Sherman, Silent Glow.

Albert Penn, Penn Electric Switch.

5. Subcommittee on Finance

Hugh Courteol, chairman, Mercoid.

Alexis Doster, Torrington.

R. S. Bohn, Preferred Utilities.

Frank H. Dewey, Gar Wood.

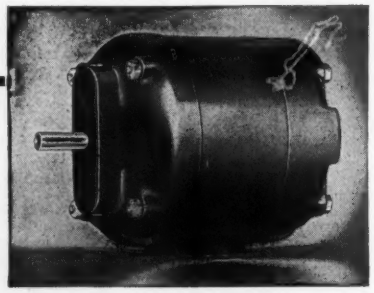
Julius K. Luthe, Perfex.

WPB Asks Dealers to Order Pumps Now

OILHEATING DEALERS are going to need a lot of oilburner pumps for replacements during the next 12 months. During the past season they were often hard to get and the oilheating public was seriously inconvenienced. To prevent, as far as possible, that happening next season, dealers are now urged by WPB to lay in a stock equal to next season's minimum requirements, and to do it right away. To do this, it is necessary to get permission from WPB.

The dealer should get from his nearest WPB office, or from Washington, a PD1X form on which to make application. The completed application should be sent direct to Charles Howard, Plumbing & Heating Division, War Production Board, 5th & K Streets, N. W., Washington, D. C. Requests to purchase reasonable pump needs will be granted.

The advantage in doing this early is that WPB will know how much critical materials to allow various pump manufacturers under the Controlled Material Plan.



A SMALL MOTOR

for General Purpose Applications

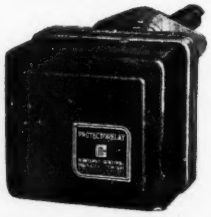
Types—Split Phase, Capacitor or Shaded Pole.
Speeds—1100, 1700, 3400 RPM.
Power—1/80 to 1/20 HP, depending on speed.
Voltages—Up to 220 A.C.
Frequencies—60, 50 and 25 cycles.
Bases—Solid, resilient or flange.
Mountings—Horizontal, Sidewall, Ceiling or Vertical, with shaft up or down.
Efficiency—High for such small powers.

What is your problem?

THE OHIO ELECTRIC MFG. CO.
5913 Maurice Ave., Cleveland, Ohio

Reliable MOTORS

OHIO MOTORS



CONTROLS REBUILT

M-H, Mercoid, Penn, Arco-Detroit, Perfex

All Kinds

Now is the time to get your defective controls in shape for next year. No delay now.

Sid Harvey's corps of experts will rebuild any relay, thermostat, limit control, etc., so that it can hardly be told from new. All kinds—All makes.

Immediate exchange from stock for guaranteed rebuilt units of same make and model. No waiting.

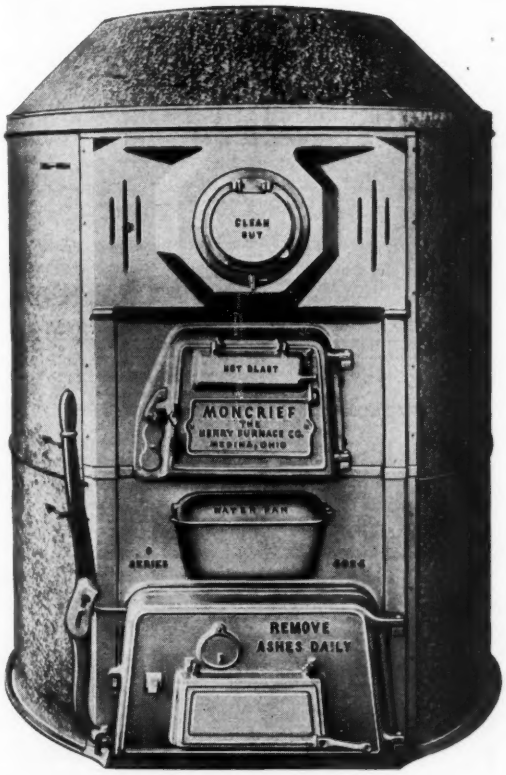
Large supply of rebuilt PUMPS, VALVES & MOTORS for exchange.

Send for price list and catalog of Harvey REPLACEMENT "PACKAGES"

SID HARVEY INC.
VALLEY STREAM, NEW YORK

MONCRIEF

A Quality Product for Over 40 Years



Series C
Coal Burning
Hand Fired Furnace

FOR almost 50 years the name MONCRIEF on a warm air furnace or air conditioning unit, a repair part or pipe and fittings has identified these products as honestly built and soundly engineered-designed and constructed to give the buyer as much dollar value as could be obtained anywhere.

This is the reason why the name MONCRIEF has always occupied a place in the front rank of the warm air heating industry.

The name MONCRIEF is going to continue to stand out as one of the leaders in the warm air heating and air conditioning industry, as it is the desire and determination of The Henry Furnace Company to design and manufacture, to the best of their ability a complete line of high quality warm air heating and air conditioning equipment, furnace pipe and fittings.

GENUINE MONCRIEF REPAIR PARTS ASSURE SATISFIED CUSTOMERS

WARM AIR FURNACES
FURNACE PIPE AND FITTINGS

MONCRIEF

AIR CONDITIONING SYSTEMS FOR COAL . . OIL . . GAS

THE HENRY FURNACE COMPANY, MEDINA, OHIO

fueloil & oil heat

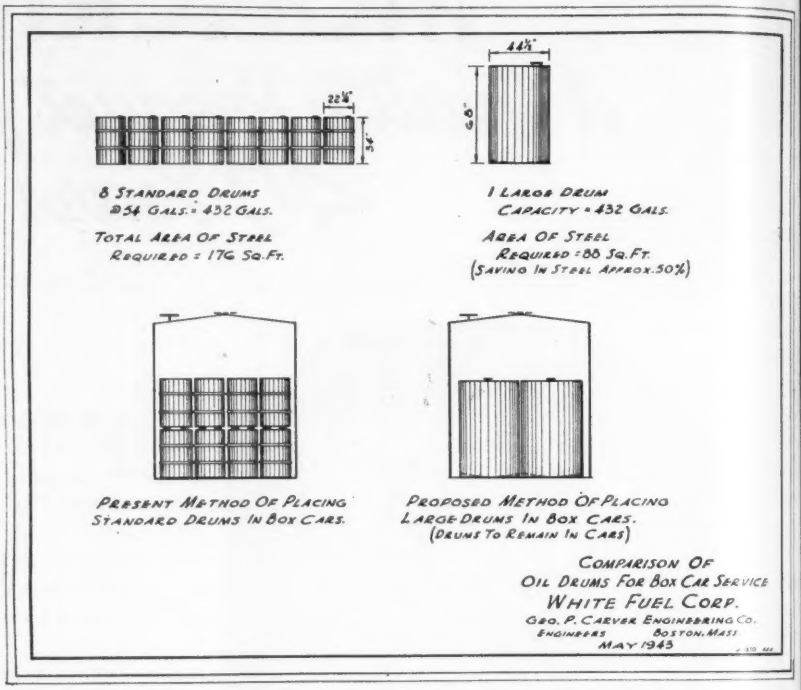
Propose 432-gallon Drums for Kerosene

RECEIVING SERIOUS CONSIDERATION in Washington agencies is a proposal by Joseph White, president of White Fuel Corp., Boston, to use 432-gallon drums instead of the present 54-gallon size for boxcar transportation of kerosene. Daily movement of 40,000 barrels to the East Coast is visualized. This would mean the arrival of 4,000 large drums daily, and assuming an 18-day round trip, would require a total of about 75,000 such drums in the service. To manufacture these would use only 7,200 tons of steel.

The large drums would take the place of 600,000 of the present small drums, the making of which uses 14,400 tons of steel, so the large size would save half of the critical material.

The life of a small drum is about five round trips. They wear out through much handling. The large drums would not be handled, would remain stationary in the car, to be filled and emptied with a hose, and thus would last indefinitely. Labor saving is estimated at upward of 50%. There would be 25 of the proposed size in a car, while present small ones are loaded 200 to a car.

There would be another important advantage in always keeping the same cars in kerosene service. Last winter there were numerous instances of food contamination when cars were used for kerosene one trip, and then put in service carrying



GULF

Makers and Marketers of Quality Petroleum Products for more than a Third of a Century

•

GULF OIL CORPORATION

NORTHEASTERN DIVISION SALES OFFICES

Park Square Building, Boston, Mass. Hancock 3700
Whitehall Building, New York City, N. Y. Bowling Green 9-5420
1515 Locust Street, Philadelphia, Pa. Pennypacker 4240

SILENT - - -

But Not Idle

We haven't been making many oil burners here in Roselle Park since Pearl Harbor and you haven't heard much from us.

We are like all those thousands of Silent Korth burners we made before the war, and which were installed by our dealers: They don't make any noise, but they are doing a whale of a job all over the country keeping homeowners warm, and their oil bills low.

We are giving every energy and waking moment to making vital war material for our sons on the fighting fronts.

And we are learning and planning many things to help our dealers in the great peace time markets ahead.

Korth Oil Burner Corp.—Eckhart Manufacturing Co.

ROSELLE PARK, N. J.

food or other perishable materials. Fire and accident hazard would be reduced through the elimination of drum handling.

Early action should be taken on the proposal since a large quantity of some kind of drums must be built before cold weather. Last winter's New England emergency necessitated borrowing 300,000 drums from the Army, not to be counted on for next season.

◈

ASHVE Members Report Oil Rationing Experience

TWO-PAGE QUESTIONNAIRES sent to its membership by the American Society of Heating and Ventilating Engineers brought 650 returns from 22 states. The survey was conducted by the Society's War Service Committee under the direction of John Howatt, committee chairman. ASHVE members played an active part on the rationing program last winter as fueloil panel members in rationing boards, and as consultants and advisors on technical problems.

Answers to questions of opinion were so varied that it is not possible to condense or classify them generally, but the Society reports an almost unanimous opinion that consideration of ration regulations and policy on conversions should be made early to make the summer available to carry out whatever work is to be done. Members also felt that advantage should be taken of the country's oil storage facilities by filling consumers' tanks during the summer, and thereby preventing tanks from floating, preventing damage from internal corrosion, and spreading the distribution load on oil men.

Replying to the question, "How did the formula and tables developed for fueloil rationing fit your needs," 47% of the members replying said the formula worked out fairly satisfactory; 20% stated it would work with minor allowances for specified conditions, and 33% thought the formula unsatisfactory.

Fifty-nine per cent of the replies urged use of an actual heat-loss formula for determining the ration, rather than the rule-of-thumb square foot formula. The remaining 41% offered a variety of suggestions for eliminating specific inequities.

A compilation of replies was submitted to rationing officials in Washington while the new program was being studied.

BLUEPRINTS FOR YOUR HOUSE *of* TOMORROW

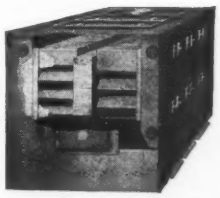
YOU MAY BUY A READYMADE HOME!

The idea of pre-fabrication is gaining momentum among leading architects and builders . . .

BUT – *Your Heating Plant will be* KOVEN WATERFILM

In the future as in the past, the KOVEN WATERFILM boiler will offer perfect assurance of heating comfort. The fastest steaming boiler on the market, as well as one of the most attractive and modern in design, KOVEN WATERFILM incorporates the newest scientific improvements. Its patented construction provides these important advantages . . . quick heat throughout the house, sustained, even room temperatures, a plentiful supply of domestic hot water, and real economy of operation.

For industrial installations, the Waterfilm sectional series (pictured) is ideal —it can be taken through a two-foot door, eliminating costly rigging and alterations.



SECTIONAL SERIES for war plant or apartment house use.

WATERFILM BOILERS, Inc.

154 OGDEN AVENUE JERSEY CITY, N. J.

PLANTS: JERSEY CITY, N. J. • DOVER, N. J.

The Weather Man Didn't Cooperate

FINAL DEGREE-DAY FIGURES for the heating season just past are shown in adjoining columns; they reveal a complete lack of cooperation on the part of the weather man in a season hard pressed for fueloil. Perhaps the best weather men have gone into the army and the novices don't know how to control outdoor temperatures; again, they may have coal interests at heart from the way they favored Pittsburgh over other Eastern cities; just as likely, Harold Ickes was responsible.

Whatever the cause, it is increasingly apparent that few civilians have been called upon to make sacrifices for the war comparable to homeowners heating with oil. Throughout the principal rationed areas, winter temperatures averaged lower than in some years past, and, by some caprice, the other parts of the country were not only warmer than the previous season but warmer than normal.

Average degree-days for all reporting cities the season just past was:

In the East
12.4% colder than the previous season
3.9% colder than normal

In the Midwest
15.4% colder than the previous season
4.5% colder than normal

Balance of Country
4.9% warmer than previous season
1.7% warmer than normal

Assuming all coupons at par value, the average oilheated home had a ration cut of 28% from the previous year or 35% from normal, after including not only the basic ration but also supplements or auxiliaries. Eastern cuts in coupon values equalled 6% of the year's par ration, so the oil burned was 38.9% less than the season before. But when this is adjusted to the colder than normal temperature, the net sacrifice in heating comfort made by Easterners was 41.2%.

Because supplies were less critical, the Midwest had increases in some period coupons, representing in total a 6% increment. Thus the net oil burned was off 23.7% from the previous season or 30.8% from normal. The past season was 4.5% colder than normal, so the net sacrifice in heating comfort was 33.8%.

Changing thermostat settings one degree in average homes affects oil consumption about 2.7%, so Eastern homes absorbed a cut equivalent to a 15° temperature reduction, and Midwest homes the equivalent of a 12° reduction. Obviously, few homes were so chilly, but that is the measure of rationing impact that had to be taken up by closing rooms, insulating, burner adjustment, as well as some temperature reduction.

◈

ASHVE has selected New York City for its 50th Anniversary Meeting according to President M. F. Blankin, Philadelphia. The dates chosen by the council at its June meeting are January 31, February 1 and 2, 1944. The New York chapter of the Society will be hosts for the occasion. Arrangements will be handled by a committee of which Alfred J. Offner, consulting engineer is general chairman. Vice-Chairmen are: R. H. Carpenter, J. C. Fitz, W. E. Heibel, C. S. Koehler, Capt. A. E. Stacey, Jr., and R. A. Wasson, President of New York Chapter, ex-officio.

◈

ILG ELECTRIC VENTILATING CO., Chicago, has approved plans for a new research laboratory to be constructed as a one-story, modern building specially designed to be shake-proof and to a considerable extent, sound-proof.

DEGREE DAY TABLES

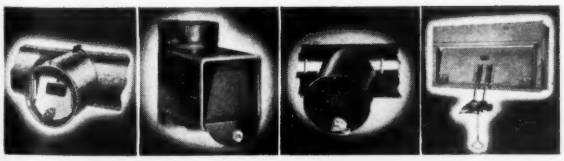
ONE MONTH ONLY					SEASON TO DATE			
	May		Percent		(Sept. 1 to May 31)			Percent
Normal	1942	1943	Change*		Normal	1942	1943	Change*
221	162	234	+ 44.5	Albany	6587	6383	7334	+ 14.9
32	14	8	— 42.8	Atlanta	2999	2880	2820	— 2.1
99	21	63	+200.0	Baltimore	4509	3802	4409	+ 15.9
248	164	243	+ 48.0	Boston	5853	5388	6156	+ 14.3
351	283	411	+ 45.3	Buffalo	6805	6286	7275	+ 15.7
259	233	301	+ 29.6	Chicago	6205	5547	6849	+ 24.0
132	118	102	— 13.6	Cincinnati	4993	4515	4885	+ 8.2
255	179	249	+ 39.1	Cleveland	5926	5572	6319	+ 13.2
14	12	7	— 41.6	Dallas	2378	2405	2321	— 3.5
271	297	387	+ 30.3	Denver	5794	5933	5282	— 11.0
165	203	249	+ 22.6	Des Moines	6356	5739	6718	+ 17.1
269	226	285	+ 26.1	Detroit	6660	5808	6800	+ 17.1
263	215	291	+ 35.3	Grand Rapids	6655	5815	6873	+ 18.2
216	120	194	+ 61.6	Hartford	6037	5662	6433	+ 13.6
409	509	499	— 2.0	Helena	7600	8473	8483	+ 0.2
2	0	0	...	Houston	1323	1406	1212	— 13.8
155	131	121	— 7.6	Indianapolis	5459	4795	5657	+ 18.0
106	134	153	+ 14.3	Kansas City	4971	4468	5064	+ 13.3
104	98	44	— 55.2	Los Angeles	1362	1328	1125	— 15.3
92	93	47	— 49.5	Louisville	4421	4032	4499	+ 11.6
340	330	380	+ 15.3	Milwaukee	6955	6539	7649	+ 17.0
255	290	321	+ 10.7	Minneapolis	7898	6847	8550	+ 24.9
1	1	0	...	New Orleans	1208	1350	1205	— 10.7
176	82	162	+ 97.6	New York	5270	4701	5308	+ 12.9
152	217	240	+ 10.6	Omaha	6074	5794	6288	+ 8.5
117	43	115	+167.5	Philadelphia	4732	4296	4913	+ 14.4
170	149	130	— 14.6	Pittsburgh	5427	5227	5666	+ 8.4
375	328	377	+ 14.9	Portland, Me.	7128	7073	7786	+ 10.1
241	249	266	+ 6.8	Portland, Ore.	4214	4079	4050	— 0.7
245	124	203	+ 63.7	Providence	5946	5304	5958	+ 12.3
88	91	93	+ 21.9	St. Louis	4602	4168	4675	+ 12.2
233	365	304	— 16.7	Salt Lake City	5568	6321	5499	— 13.0
252	268	224	— 16.4	San Francisco	2562	2404	2446	+ 1.7
494	493	521	+ 5.7	Sault Ste. Marie	9021	8332	9416	+ 13.0
304	262	322	+ 22.9	Seattle	4560	4103	4333	+ 5.6
226	193	251	+ 30.0	Toledo	6202	5621	6619	+ 17.8
104	23	73	+217.8	Washington	4582	3900	4376	+ 12.2

*Compared with last year, not with normal

. . . Against
OLD MAN WINTER

The success of Uncle Sam's *fuel conservation program* depends on YOU. Uncle Sam is telling them WHY — you must show them HOW — to conserve fuel with specific products. Write or wire now for full data on the Field line of Barometric Draft Controls for domestic and commercial installations. Act now.

FIELD DRAFT CONTROLS
SAVE 5% TO 25% OF FUEL



By controlling natural draft, the Field Control cuts fuel consumption 5% to 25%! The units shown cover installations ranging from space heaters to large industrial boilers — coal or oil. The domestic units require as little as 30 minutes to install. The market is enormous.

FIELD CONTROL DIVISION

H. D. Conkey & Co.
Mendota, Illinois

fuel oil & oil heat

CONSERVATION

has ever been the watchword in the Shell Fuel Oil Burner Testing Laboratories

★ ★ ★

SINCE 1929 the scientists in Shell Fuel Oil Burner Testing Laboratories have been stressing conservation . . . seeking new methods of improving fuel oils, cooperating in perfecting oil burner designs.

In fact, they have assisted in solving many of the major fuel oil problems confronting the country's manufacturers of all types of oil burners.

A digest of the valuable resulting data of this great research effort has been made available in the booklet shown below, together with valuable information for home-owners on proved ways of saving fuel oil. Everyone in the oil burner and fuel oil business should have a copy of this practical booklet.

SEND FOR YOUR COPY TODAY

ADDRESS:
Shell Oil Company, Inc.
50 West 50th Street
New York, N. Y.

SHELL

SHELL FUEL OIL
Burner Testing Laboratories

Donald Nelson Cites Conservation Needs

AMERICA'S ABILITY to meet next winter's fuel shortage will depend in large part upon steps taken early to conserve heat through proper conditioning of homes, Donald M. Nelson stated early in June in asking the Conservation Division of the War Production Board to work closely with other government agencies, including OPA, PAW, FHA and ODT, in developing the fuel conservation program for 1943.

"Before we begin burning fuel next fall," said Mr. Nelson, "we should be very sure that the heat container—the house itself—is prepared to use fuel most efficiently." Pointing out that most homes can be "heat-sealed" without the use of highly critical materials, Mr. Nelson urged home owners to take immediate steps to condition their buildings.

"Building technicians in the Conservation Division say that home conditioning —sometimes a relatively simple operation —can save up to one-third or more of fuel consumption. Certain of the installation jobs can be done by the home owner himself, but some of them need to be handled by contractors. Wherever this is the case, immediate action is urged, as the manpower shortage likewise is felt in this field, and orders may need to be placed well in advance. Insulation for walls and ceilings, storm sash for windows and doors, weatherstripping and calking are among the principal measures for preventing heat loss and insuring greater comfort with less fuel.

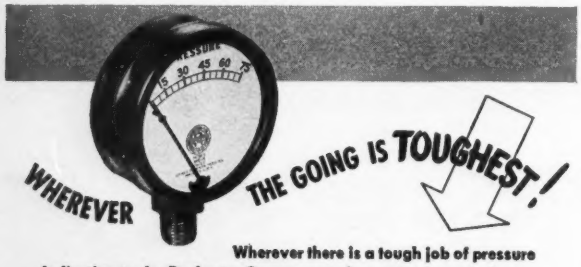
"Arranging for insulation—like ordering fuel—is something that because of wartime shortages of transportation materials, and labor must be done well in advance of the heating season, if the home occupant is to be assured of sufficient comfort during the colder months. Store owners, school superintendents, church boards, office building managers, are urged to take similar action, to make certain that their buildings—which in the aggregate consume very large amounts of fuel —are properly 'winterized.' It is expected that the total fuel saving that can accrue from application of home insulation on a national scale, will help greatly in correcting shortages due to difficulty in production and transportation."

Oil-O-Matic Employees Buy Extra $100,000 Bonds

WHEN OFFICIALS OF Williams Oil-O-Matic Heating Corps., Bloomington, Ill. recently received notice from the War Labor Board that newly approved wage schedules were retroactive to December 1, the company's employees started their own drive to invest the back pay in War Bonds, especially earmarked to purchase a fighter plane. When the drive had ended, $100,000 had been subscribed, enough to buy the plane and also to equip the fighting men who will fly it. The plane is to carry the designation "Employees of Oil-O-Matic." The entire purchase was in excess of the regular 10% plan in which all Williams' workers are enrolled.

◈

Arthur A. Adams, formerly transportation specialist for WPB and the War Department, has become Chicago regional manager of the Section Tank Car Service of ODT's Division of Petroleum and Other Liquid Transport.



Wherever there is a tough job of pressure indication to do, Rochester Gauges can always be depended upon to do that job accurately and dependably . . . even when the going is the toughest! The 2 BP (illustrated) is but one of many Rochester Indicating Instruments serving the war effort and industry alike. Bulletin GG-343 gives complete information. Write for it today!

Rochester Mfg. Co., Inc., 7 Rockwood St., Rochester, N. Y.

ROCHESTER Individually Calibrated GUARANTEED ACCURATE INSTRUMENTS

FOR ACCURATE LIQUID-LEVEL PRESSURE and TEMPERATURE INDICATION

HEIL

is the Name to Remember

— for oil burners . . . oil-designed furnaces and boilers *that assure you of:*

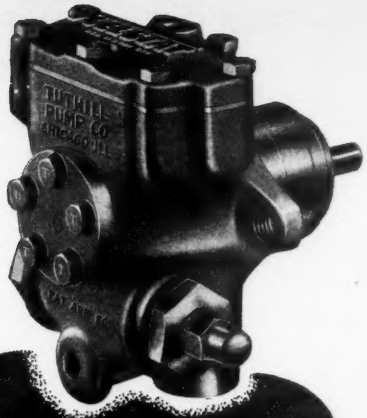
- ✓ Satisfied, loyal customers
- ✓ Minimum service trouble
- ✓ Efficient, economical operation
- ✓ Design features that sell
- ✓ Profitable manufacturer-dealer relations

H-1

HEIL ANSWERS UNCLE SAM'S CALL . . . and helps the Arsenal of Democracy supply materials for Victory!

THE HEIL CO.

GENERAL OFFICES: MILWAUKEE, WISCONSIN



S-T-R-E-T-C-H-I-N-G TUTHILL PUMP PERFORMANCE

Until the happy day when "the duration" is over and Tuthill Pumps and Fuelstats return to peace-time service, here's a suggestion to help you get present equipment ready for next winter's heating season.

Tuthill's war-time service is available through authorized field service stations or at the factory —for repairing or reconditioning Tuthill Pumps and Fuelstats to give "like-new" performance.

It's a sure way to s-t-r-e-t-c-h dependable Tuthill performance until these superior pumps are available again.

TUTHILL PUMPS
ARE SERVING
ARMY • NAVY • AIR FORCE
MERCHANT MARINE

★

TUTHILL PUMP COMPANY
939 EAST 95th STREET • CHICAGO, ILLINOIS

fuelfoil & oil heat

It's Time to Tell About Refrigeration's "*Hidden Services*"

. . *take* Life-Saving BLOOD PLASMA

for instance . . .

A leading physician of the American Medical Association, said recently, "Our vast program for procurement and distribution of Blood Plasma as a life saving measure for our armed forces is *dependent on REFRIGERATION.*"

Donated Blood would deteriorate and become useless, were it not for Cold Storage Cabinets at Blood Donor Centers, Refrigerated Shipping Containers which carry it—within 24 hours—to processing laboratories. Then Refrigerated Blood Coolers, Blood Banks, Plasma Storage cabinets protect the life-giving Plasma until processed for emergency use, at Army and Naval Hospitals, on shipboard and at Army field medical units overseas.

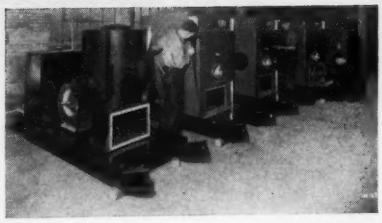
Because of this A-P record for DEPENDABILITY in Controls, leading engineers and designers of Refrigeration and Air Conditioning Equipment—for post-war markets —are already sending intricate new-control problems to A-P. We invite your inquiry, and assure you designing and engineering assistance that you can use to profit.

AUTOMATIC PRODUCTS COMPANY
2458 NORTH THIRTY — SECOND STREET
MILWAUKEE 10 WISCONSIN
Export Department . 100 Varick Street, New York City

ap **DEPENDABLE** *Refrigerant Valves*

Furnace on Skids Solves Heat Problems

FUELOIL RATIONING of civilians helps make available some of the oil that is being used by the armed services and industry to relieve tough temporary heating problems. Industrial plants where some departments work while the rest of the plant is closed, airplane hangars in isolated places, tent theatres, and a multitude of other temporary buildings necessary to the war effort, have no provision for heat when needed.



Mueller *Series 50 oilfired furnaces on skids move down the assembly line for the armed forces.*

To solve some of these problems, L. J. Mueller Furnace Co., Milwaukee, has produced portable oilfired heating plants on skids, complete with 100-gal. oil storage, burner and all controls that can be dragged into place or transported by crane or standard lift-type tractors.

An induced draft fan is built into each unit to minimize venting problems and eliminate the need for a chimney. Units are supplied in three sizes and capacities to be used as a direct-fired unit heater or piped to a heat distributing system.

◈

Precedent Set for Small Drop Premium

THE OIL PRICE Division of OPA, in Amendment 108 of RPS 88, effective June 14, established a precedent in allowing ½¢ premium on fueloil drops of less than 100 gallons in the New Haven area. Work is being done toward applying such a premium to additional oilheating areas, but so far there has not been formal action in other than the New Haven case.

Price ceilings in New Haven and ten surrounding towns for No. 2 fueloil were established as: Bulk lots for delivery by tank car or motor transport, f.o.b. terminal, 7.1¢; at tanker and barge terminal operators' yards for delivery into buyers' tank trucks, 7.3¢; at inland bulk plants for delivery into buyers' tank trucks, 7.4¢; deliveries to consumers, 100 gallons or more, 8.6¢; less than 100 gallons, 9.1¢. These prices do not include the 3/10¢ increase of December 29, so consumers will actually pay 8.9¢ for large drops and 9.4¢ for less than 100 gallons.

◈

Mark Anton, West Orange, N. J., has resigned as East Coast chief of PAW's Fuel Oil Section. He will return to his civilian position as president of the Suburban Gas Company of New Jersey.

U. S. Department of Labor March Fueloil Prices

FIELD INVESTIGATORS for the Department of Labor periodically check prices of principal fuels in several cities in each section of the country. Getting retail quotations from a number of dealers in each market, the prices are averaged and published. Those in the table that follow were taken March 15 (cents per gallon):

	Range	*No. 1*	*No. 2*	*No. 3*
Boston	10.26	10.06	9.00	9.00
Bridgeport	...	...	8.80	8.80
Fall River	10.40	...	9.70	...
Manchester	10.95	...	9.70	...
New Haven	10.60	...	8.90	...
Portland, Me.	9.90	9.82	9.00	...
Providence	9.95	9.82	9.00	...
Baltimore	...	9.60	9.00	...
Buffalo	10.60	10.60	10.00	10.00
Newark	...	10.50	9.00	...
New York	...	...	9.09	9.09
Philadelphia	...	9.82	9.00	9.00
Rochester	10.76	10.76	9.70	9.70
Washington	...	10.25	9.40	...
Chicago	9.49	7.96	7.96	7.96
Cleveland	...	8.55	8.55	8.03
Detroit	...	7.93	...	...
Des Moines	...	8.36	7.75	7.75
Milwaukee	8.50	8.50	8.00	8.00
Minneapolis	8.61	8.13	8.10	8.10
Omaha	...	7.80	7.20	7.20
St. Louis	8.26	7.74	7.24	7.24
St. Paul	8.63	8.14	8.10	8.10
New Orleans	...	8.76	7.21	7.21
Norfolk	...	9.70	8.80	8.80
Richmond	...	9.98	9.00	9.00
Denver	...	8.16	7.14	...
Portland, Ore.	...	7.00	6.00	...
Seattle	...	7.52	6.48	...

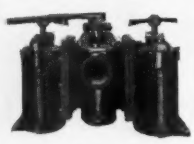
◈

KRAISSL

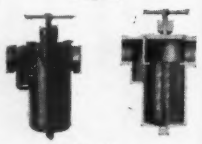
PRODUCTS

OFFER PROVED PERFORMANCE

Kraissl Class 72 Strainers and Filters



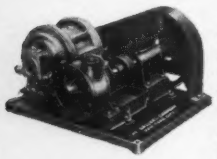
Duplex



Single

Single and duplex types for suction and discharge service. Any practical degree of filtration. A necessity on every fuel oil line to protect pumps and burner nozzles. Available for low pressures as well as high pressures up to 500 pounds hydrostatic test.

Kraissl Class 60 Heavy Oil Pumps



Known and used as standard equipment for many years wherever independent pump and motor sets are required and as booster pumps for pump type burners.

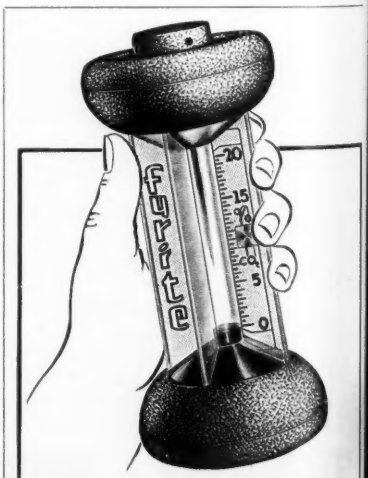
Kraissl-Trumbull #522 Fuel Pump Unit

for gravity type oil burners having a burning capacity of not more than 3 gallons per hour. A rugged, dependable, wall pump approved by Underwriters' Laboratories, Inc.

Write for literature and dealers prices.

THE KRAISSL COMPANY
INCORPORATED

295 Williams Ave., Hackensack, N. J.



The CO_2 ANALYZER

That Simplifies Combustion Tests

Companion Draft Gauge and Mercury Thermometer also available.

Bacharach Industrial Instrument Co.

7000 Bennett Street • Pittsburgh, Pa.

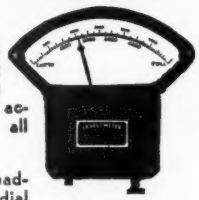
York Ice Machinery Now York Corporation

THE YORK ICE MACHINERY Corporation, one of the nation's largest producers of refrigeration and air conditioning equipment, has announced the company will be known as the York Corporation as a result of final court approval on a plan of merger and recapitalization.

Actually, the 58-year-old company has been referred to generally as the York Corporation for a number of years but now it has been decided to adopt officially this simpler name, S. E. Lauer, President, explained.

WITH OIL CONSERVATION MORE VITAL THAN EVER, Its Accurate Check-Up Is Important— INSTALL LEVELOMETER TANK GAUGES "They're Dependable"

A LEVELOMETER gauge on an oil tank installation eliminates guesswork—it insures accurate readings at all times.



Large Model LEVELOMETER 12" x 12" case

Convenient, remote reading:—LEVELOMETER dial may be located at any reasonable point from tank and—large graduations and numerals make it easy to read.

LEVELOMETER tank gauges, approved by Underwriters' Laboratories, operate on an exclusive adaptation of the hydrostatic principle. No liquid is used in indicator to be affected by temperature changes, to evaporate, stain glass or to be blown out due to excessive pumping.

Midget LEVELOMETER Lowest priced Remote Reading Gauge Built

Small Model LEVELOMETER 6" x 6" case

Get complete details regarding LEVELOMETER tank gauges—the Remote Reading gauges that insure accurate — trouble free check-up.

THE LIQUIDOMETER CORP. 36-19 SKILLMAN AVE., LONG ISLAND CITY, N.Y.

Market Planners

C. T. Burg, *Iron Fireman,* (*seated left*) *explains the Indoor Climate Institute program to R. E. Moore, Bell & Gossett; J. M. McClintoc, Illinois Iron & Bolt; J. R. Scott, Mueller Furnace; and* (*standing*) *E. N. McDonnell, McDonnell & Miller; P. B. Zimmerman, Airtemp; and C. D. Lyford, Minneapolis - Honeywell.*

Southeastern Oil Men Urge Separate Deal

DESIGNATION of North and South Carolina, Georgia and Florida as a separate unit for oil and gasoline rationing purposes was urged in a resolution in June by the Southeastern Oil Jobbers Assn. Copies of the request for divorcement from the rest of District I were sent to Harold Ickes, PAW, and the governors and congressmen of the states named.

The association declared that the operating and marketing problems of these four states vary from the balance of the District and that most sales are handled by independent jobbers who are without representation on the committees handling District I affairs. The committeemen, in most cases, the resolution states, are major oil company men.

George M. Muschamp and *Paul L. Goldstrohm* were elected vice-presidents of the Brown Instrument Company, a subsidiary of Minneapolis - Honeywell Regulator Company, June 22, following a meeting of the company's board of directors at Philadelphia. Muschamp will be vice-president in charge of engineering and Goldstrohm will be vice-president in charge of production. Both posts are newly created.

A. J. Anderson, who was a member of the firm of Freeborn & Anderson, Rutland, Vt., sales and service oil heating concern, has been appointed district chief of the Smaller War Plant Corp. for Vermont, with offices in Montpelier.

MAY WE send you service men this helpful booklet?

You're an expert at curing sick burners—so there's no use saying that this book will help you learn any new tricks about saving oil, heat or money!

But many of you oil-burner service men are using the book to show their customers what Sun Oil recommends these war days when furnace oil is scarce. Who knows? It may help you make other recommended sales—and now that you can't sell new burners, it's servicing the old that will carry you through the duration.

So hadn't you better keep a copy in your sales kit? Just drop a line to Sun Oil Company, Sun Building, Philadelphia.

. . . sponsors of the famous LOWELL THOMAS broadcasts which are regularly advising oil burner owners to consult their local service men if they want their burners kept at peak efficiency.

SUNHEAT FURNACE OILS

SUN OIL CO., PHILADELPHIA

Readers' Forum

AUTOMATIC HEAT, INC.
Philadelphia, Pa.

Editor:

Much as I appreciate your notice of my election to the Chairmanship of the Atlantic Coast Oil Associations Conference, I must take exception to two statements therein.

First you raise my "Eire" by making an Irishman of me—not that I don't love the Irish—I do so—I married an Irisher and would marry as many more like her as she'd let me. It takes an Englishman to do that.

Secondly you raise my "ire" by stating that my fueloil distribution experience came with the purchase of my present Company.

From 1920 to 1928 I was General Manager of Fess Oil Burners of Canada Ltd. of which A. L. Ellsworth, President of British American Oil Company was President and principle stockholder.

During this period I developed for B.A. a very sizable fuel oil business and was more or less familiar with all phases, even to the refining end of the business. The refining by the way, was not new to me by any means, as I spent three years in various capacities with Burt Boulton and Hayward of London, England much of this at their refinery in Silvertown, London and during 1915 and 1916 I built and operated a Benzol Recovery and Pure Benzol and Toluol Refining Plant for the Algoma Steel Corp.

LIONEL L. JACOBS,
President.

◈

GUARDIAN UTILITIES CO.
Michigan City, Ind.

Editor:

In the June issue of FUELOIL & OIL HEAT, I noted the first question and answer on page 56. This prompts me to pass on some information. We are doing 98% war work and had trouble with the wooden floor of our shop becoming oil-soaked This got us in a jam with the fire marshal. Trying to lick this fire hazard, we have found a product put out by the Waverly Petroleum Company, Philadelphia, called "Speedi-Dri." This compound will remove oil from the floor so thoroughly that a clean handkerchief will not be soiled after its use. It occurs to me that it would find a definite demand among oil burner men and that it would be a good idea to investigate it for the benefit of the trade.

V. E. MALMFELDT.

◈

QUIET MAY—BLONDEL CORP.
Montclair, N. J.

Editor:

In your questions and answer column on page 56 of the June issue of FUELOIL & OIL HEAT, I was interested in the question of "A. G. A., Sioux City," and the answer you have given him.

I have found the quickest way to eliminate an oil spot on the floor where it is desired to paint the floor, that the use of a gasoline blow torch played over the spot for five or ten minutes will entirely burn the oil in the concrete, so that the paint can be applied the same day.

I was also interested in the question from "W. H. C., Wilmington." I can recall on numerous occasions where this condition has been present, and in addition to the fine explanation you have given him, I have learned poor atomiza-

★★★★★★★★★★★★★★★★★★★★★★

KEEP 'EM FIRING
with Gar Wood

★ Self-Contained Forced Warm Air Automatic Oil-Fired Heating Units, (from 50,000 to 500,000 B.T.U./Hr.)

★ Industrial Space Heaters up to 500,000 B.T.U./Hr.

★ Boiler-Burner Units up to 25 HP.

Some Distributors and Dealers are receiving Government business for Heating Equipment. If you are one of those who are called upon to submit estimates, heating plans and surveys, we suggest you enlist our cooperation and our engineering service.

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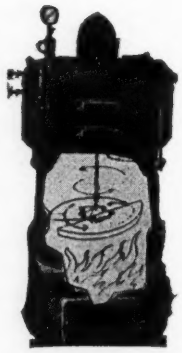

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Dirty nozzles caused one seventh of all service calls. During the summer months protect yourself for next winter by installing General Filters, which remove all dirt, sticky gums and waxes in the fuel line, thus preventing fouling of nozzles and pumps.

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tion and excessive draft coupled together will draw partly burned particles of oil and deposit them on the rear section of a rectangular furnace or on the rear part of a round boiler.

H. F. MCKEOWN,
Manager.

◈

T. M. Cunningham has been designated general manager, Construction and Service of Carrier Corporation, it is announced by E. T. Murphy, senior vice-president. *G. D. Harbin* has been designated Regional Construction Manager of Carrier's Central Region to fill the vacancy created by the transfer of Mr. Cunningham. *L. L. Lewis* is designated as Technical Adviser to the Marketing Division in the field of air conditioning. *W. F. Jones* is designated as Technical Adviser to the Marketing Division in the field of centrifugal refrigeration. *O. W. Bynum*, formerly in charge of the Southern Region, is transferred to the Home Office, and will serve as Assistant Manager of the Marketing Division.

Delivery Spacing

(Continued from page 15)

against the degree days that might normally be expected during the period in which re-valuation was ordered.

The above is suggested as a form of delivery to fit the circumstances present at this time. No attempt has been made to secure many of the refinements which in the past have been possible in well-run degree day systems.

This, again, would be a loose measure, as a zone having a normal heating season of 6000 degree days might one year actually run 6300 or 6400 degree days, or in another year might run 5300 or 5400 degree days. Naturally, it is possible that if the heating season ran above average in D.D., say 6300, there would be at the latter end of the season a shortage of necessary fuel. However, this proportion of use, as utilized in the figures given, is based on the figuring OPA has used in setting oil rations, which oil rations are presumably at about a minimum at which temperature may be maintained which will not be detrimental to health. The different zones set up by OPA have been figured for a different number of degree days for the *average* winter in a particular zone designated.

In this discussion we talk of shooting at the mark of 200 gallons per delivery and by obtaining this large size drop assuring that the total season's supply will be delivered in the least number of trips.

Smaller Drops Possible

It is not altogether true that by the mere obtaining of 200 gallons per delivery that the number of deliveries made will be any less than in certain circumstances where a smaller average drop size might be made.

To make this point clear let us take the case of a user with a rationed amount of 1500 gallons. If we get a large-size summer fill-up of 270 gallons, that would leave a balance of 1230 gallons to be delivered over the remainder of the heating season.

If in delivering this 1230 gallons we maintain a 200 gallon average drop we would make six deliveries at 200 gallons each, plus one delivery for the small amount of 30 gallons. This, plus the sum-

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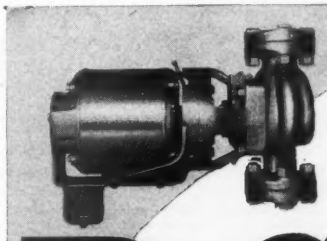

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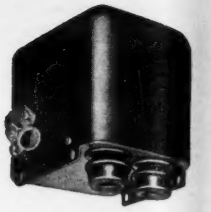

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mer fill-up, would total 8 deliveries for the entire 1500 gallonage. If, on the other hand, we could increase our drop to 205 gallon average, we could do it in a total of 7 deliveries or one less trip.

Analysis shows that on the balance we would not be able to obtain such a large average due to coupon validity. Perhaps it is higher than we care to attempt anyway. If we take the same rationed amount, make a summer fill-up of 270 gallons, this would again leave a balance of 1230 gallons for the remainder of the season. As we look at this amount we realize that it is going to take seven trips to deliver the balance anyway. Therefore, if we divide our remainder of 1230 gallons by the seven trips that are necessary, we find that an average drop size of 176 gallons will result. These seven trips at 176 gallons plus summer fill-up of 270 gallons will make a total of eight trips for the approximate seasonal gallonage of 1500 gallons.

As far as delivery effort goes, the supplier is no better off in one case than the other. Indeed he might find that for this particular customer it would be easier for him in scheduling his deliveries to shoot for an average, after the summer fill-up, of 176 gallons rather than the larger drop size of 200 gallons.

There might be certain advantages in following through on the analysis of the individual accounts this summer to the point where average drop sizes were set up for the individual customer. The criterion for this analysis of individual consumer drop size might be not the size of the delivery itself but first the number of trips that would be necessary regardless of drop size, and then selecting a drop size for that customer which would most easily adapt itself to the over-all dispatching picture.

Iron Out Delivery Peaks

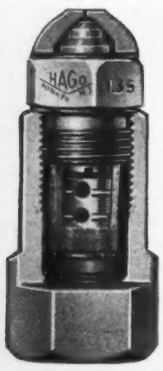
In almost any delivery system there are apt to be built up peaks of delivery effort unless great care is taken to avoid them. Many an operator of a well-run Degree Day system has found himself, under certain weather conditions, where he has had to carefully go over the individual cards which came up in the tickler file for delivery and select for the actual delivery those cards on which the delivery demand was most pressing.

By the analysis this summer of the individual accounts using the number of trips necessary as a yardstick, rather than merely being governed by drop size, it might be possible to so adjust and readjust the individual accounts so that the peaks and valleys of delivery demand might be leveled out to very great extent.

This would have a very decided advantage in regard to trucks, drivers, clerical demands on office force, etc.

Naturally all this would not work out as easily as it is written. We have certain constants with which we can work, namely: (1) the total rationed amount, (2) the number of Degree Days in an average heating season for the locality, and (3) the storage tank size; (4) the energy and incentive to use these three constants to develop a truck and time saving delivery method. In addition to these, however, we have the very great variable factor of the human element—namely, the consumer himself.

This consumer under rationing condi-



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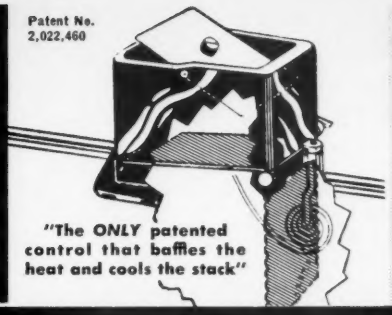

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sons reacts in different ways in regard to the rate at which he tends to consume his oil, the methods that he may use to save fuel oil, and the times that he will put these methods into effect may distort greatly the thinking and analysis of the dealer. If the consumer is made aware of the dealer's efforts and given some realization of how the dealer is attempting not only to save his trucks and driver time but also to protect the consumer himself in regard to the manner in which the consumer burns his oil in comparison to his rationed amount, then many of these consumer difficulties might be greatly bettered to the advantage of both.

Coupon Deposit Not Essential

To set up spacing of delivery it would not be absolutely necessary that coupons be deposited. Even though the consumer held his coupons, as long as the dealer knew the total amount of them and the manner in which they were divided among the various periods, he could still put the customer on the delivery set-up noted. It would not be as satisfactory as if coupons were deposited because it would probably be necessary for the householder to be at home at time delivery is made. Time would be spent picking up coupons from the householder and consequently delivery proportionately slowed up. To have the consumer on the system, however, would enable the delivery company to approximate the time at which such consumer should receive his oil, and by the use of the telephone in contacting the consumer give better assurance of the necessary connections between dealer and consumer being made.

The information that would be necessary on a consumer who did not deposit his coupons might be noted by the driver in making his first fill-up in case the supplying company found it impossible to make the contacts through their sales organization. Actually the use of salesmen for this type of contact would yield the greatest benefits. A definite effort naturally would be made by them to get the consumer to change his mind in regard to coupon deposit and also a selling job could be done in securing the utmost cooperation from such consumer.

The necessity to avoid as much as possible the confusion and disorder that existed last year, the necessity to eliminate the "call-in" type of consumer demand which plus other things kept the telephone so wildly ringing last heating season, the office burden which became a condition almost unbearable, and the great waste of trucks and driver time—all these things would seem to indicate that any attempt to establish some system was better than to continue with no system. The establishment of Spacing of Deliveries, plus the coupon filing form envelope, might relieve many of the disorders and excess efforts that were present during last heating season.

◈

Walter Lige, formerly in charge of Bell & Gossett Company's Pittsburgh office, has been moved to the plant at Morton Grove, Ill., as factory manager.

H. M. Jackson, who for many years headed the prominent Southern heating engineering firm of H. M. Jackson & Co., died May 29 in Atlanta, Ga.

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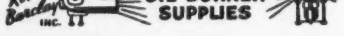

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WANTED: Engineer, with experience in warm air and radiator heating fields, having complete knowledge of automatic heating equipment, installation layouts, and ability to analyze and answer service complaints, to work in engineering department of large heating equipment manufacturer. In replying, supply snapshot, state salary expected, draft status, schooling, positions held, etc. People in our company know of this ad. Box 460, FUELOIL & OIL HEAT, 232 Madison Avenue, New York, 16, N. Y.

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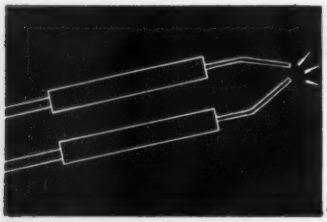

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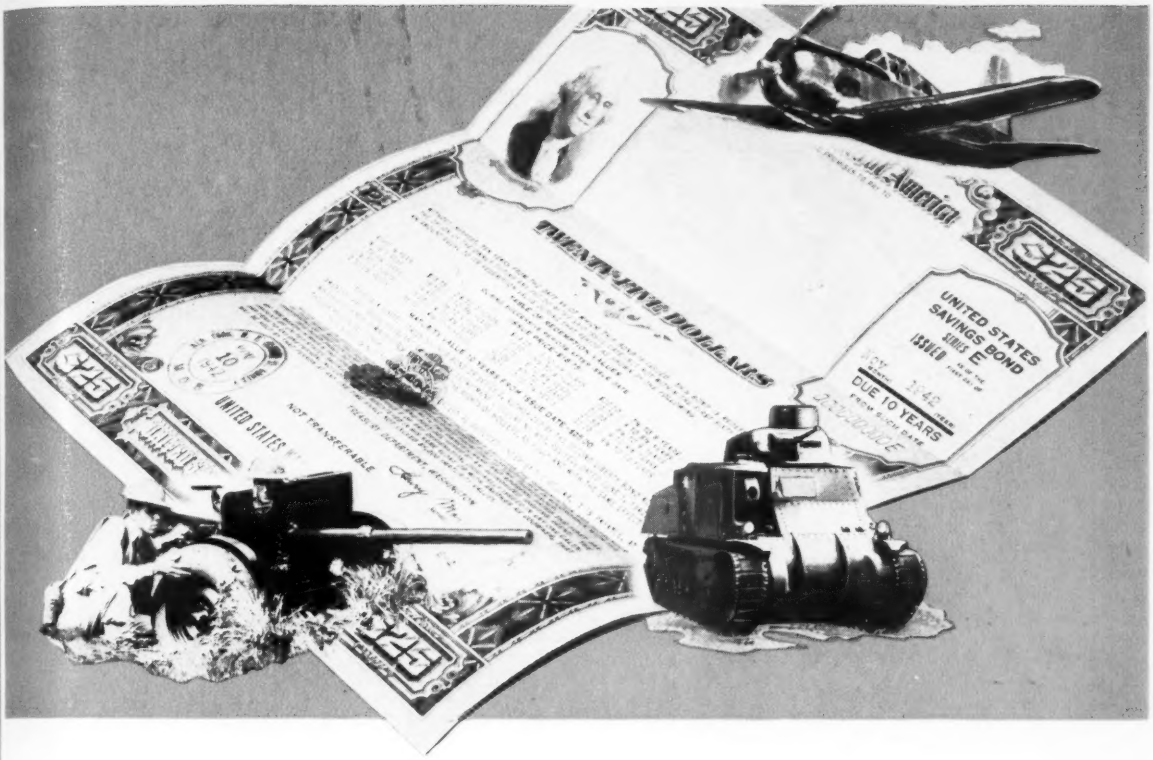

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